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Vol. IV.

TRANSCRIPT OF RECORD

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1904

No. 6275

DES MOINES GAS COMPANY, APPELLANT

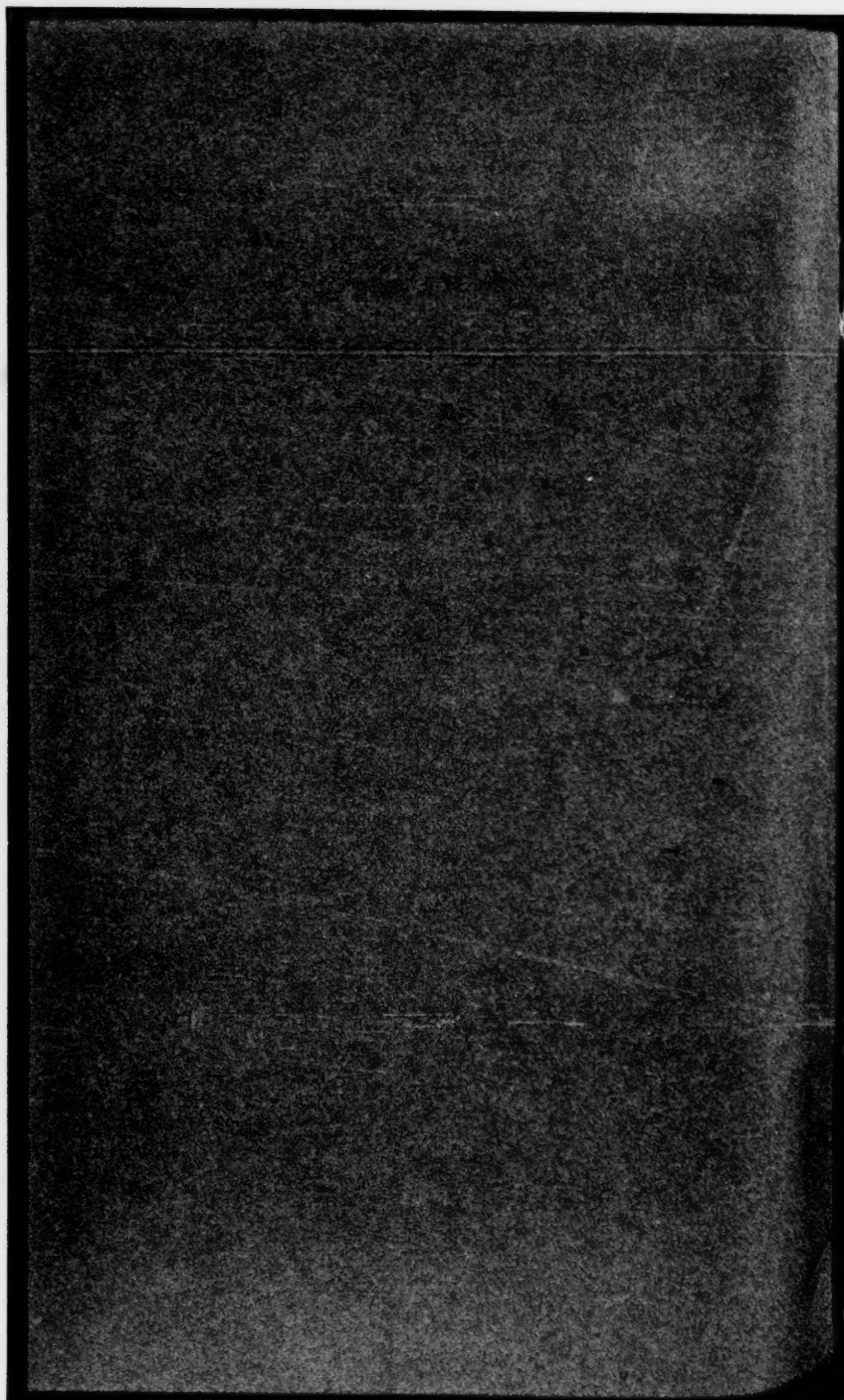
CITY OF DES MOINES, APPEE



APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR
THE SOUTHERN DISTRICT OF IOWA

FILED DECEMBER 14, 1904

(22,450)



(23,459)

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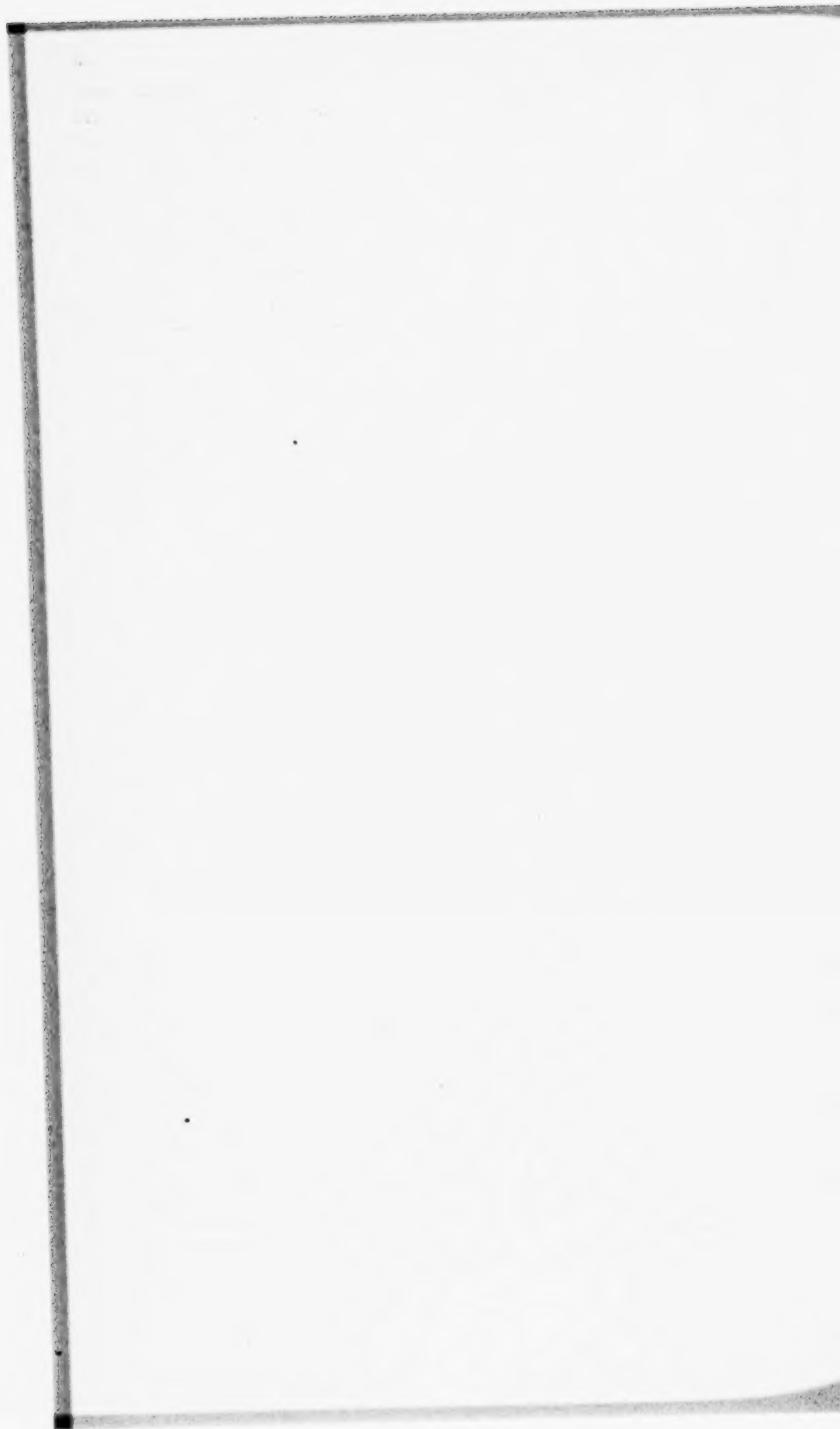
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VOLUME IV.

DES MOINES GAS COMPANY
vs.
CITY OF DES MOINES et al.

3491

Monday Forenoon Session.

SEPTEMBER 18, 1911—at 9:30 A. M.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

E. C. PEASE, continuing his cross examination, examined by Mr. Read, testified:

Q. Mr. Pease, we were inquiring about a sale on the corner of East Third and Vibe Streets perhaps; I wish you would identify the property now, if you can—what was the property you then referred to?

A. On Thi-d Street, Third and Vine.

Q. Who was the purchaser?

A. I understand the Yeager Manufacturing Company.

Q. Who was the seller?

A. I don't know whether Mr. Ankeny made the sale personally or not.

Q. Where was the title?

A. In the Oil Company, I suppose; they said they lived in New York; I had it for sale but I didn't make the sale.

Q. You had it for sale from Mr. Ankeny?

A. Yes.

Q. He is the Manager of the Oil Company?

A. I understand it that way.

Q. When was that sale made?

A. I don't know; I never saw any record of it.

Q. When did you have the option?

A. This past summer.

Q. In 1910?

A. It might have been, I am not certain.

Q. You are mistaken, aren't you, it was an earlier date, wasn't it?

3492 A. Yes, an earlier date.

Q. You had an option on that from Mr. Ankeny for how long?

A. Well my parties asked I think a three weeks' option and Mr. Ankeny consented to it.

Q. What was the price under your option?

A. \$8,000.

(2297)

Q. That is a quarter block?

A. Yes.

Q. Now, was there any other sale that you took or considered in forming an opinion as to the price of the Gas Company property?

A. Well, no, I understand that the sale in Block K—I understand that was sold to the Younger Brothers several years ago—

Q. What part of Block K?

A. 3 and 4.

Q. The Gas Company owns it now, don't it?

A. I understand so.

Q. You had in mind then in fixing the basis for the valuation of the Gas Company property what Lots 3 and 4 in Block K sold for some years ago?

A. Well, I don't know that I took that in consideration; the man had an established business there, I don't consider that a fair estimate of the values.

Q. That is also true, isn't it, with respect to the sale of the Yeager Manufacturing Company, that was a very low valuation, wasn't it?

A. I think not.

Q. So you took that as the basis of the valuation of the Gas property?

A. Of course I sold that quarter block where the soap works was several years ago.

Q. What property was that, what lots?

3493 A. I don't know as I can tell you without looking at your plat. I think that is 5 and 6 in L.

Q. 5 and 6 in Block L?

A. Yes, I think that is where the Bolton Soap Works is.

Q. That is in Block K, isn't it?

A. That is right; I was looking at this scale here; I guess that is right, in K; 5 and 6 in K.

Q. How long ago, in what year?

A. I don't remember when they started that works there. I think I sold that at that time for about \$1,200 or \$1,400, the quarter block?

— That was how many years ago a good many years ago?

A. Yes.

Q. As much as ten years, wasn't it?

A. Yes, probably, maybe more.

Q. Was it fifteen or eighteen or twenty?

A. I can't say, Mr. Read; I wouldn't say how long ago; I am not good on dates.

Q. Well, you had that in mind then?

A. No, I didn't have that in mind.

Q. What other property did you have in mind as affording you a basis for the valuation of the gas property at the time you made the valuation?

A. Outside of the property belonging to the Oil Company I never have had application for property down in that block.

Q. And that price at which you held the option seemed to you to be a normal price, high enough?

A. Well, I thought it was a good round figure, at least my clients thought it was.

Q. And so you used that as the basis of getting at the valuation?

3494 A. Well, that helped to form an opinion. I made another sale years ago in that block.

Q. Ten, fifteen or twenty years ago?

A. I couldn't say; probably—

Q. You had in mind this Yeager Manufacturing Company and you took into account to some extent the sale you made to the soap people years and years ago, didn't you?

A. In fact there has been no demand so far as my knowledge goes for property down there.

Q. You also took into account the other sale you refer to, made years and years ago?

A. Well that of course—

Q. And from that you formulated in your own mind the basis of the valuation of the gas property—is that right or wrong?

A. Not wholly—in part.

Q. Wherein is it wrong?

A. Because that was so long ago it would not be hardly fair.

Q. You are now referring to these two sales other than the Yeager Manufacturing Company?

A. Yes; but the last two sales, the Oil Company quarter block I think was high water mark.

Q. You think that was high water mark and therefore you took that as the unit, so to speak?

A. Yes, largely.

Q. And from that basis you valued, by comparison valued the Gas Company property?

A. Yes. Of course, that street was paved, you know.

Q. That, you think, would enhance the value of the Yeager Manufacturing Company property?

A. Yes, sir.

3495 Q. So that in your opinion the price on the Yeager Manufacturing Company property, owing to the fact that the street was paved, was too high?

A. I say it is high enough.

Q. You think it was too high as a basis of comparison of the Gas Company property?

A. It is high enough; not too high.

Q. You say the property that the Yeager Manufacturing Company purchased was on a paved street?

A. Yes, sir.

Q. That made the property more valuable?

A. Yes, sir.

Q. And therefore that property was more valuable than the Gas Company property?

A. I think so.

Q. So you didn't value the gas property as high as the price at which the Yeager Company property was valued?

A. Yes, sir; I think I did higher.

Q. What did you do that?

A. I wanted to give them the benefit of the doubt, if there was

any; some might think that property near the river might be more valuable.

Q. Did you think so?

A. No, sir.

Q. Why did you then add to the value?

A. I knew the demand was for more property near the river; that is, my clients had always thought that way.

Q. Had you ever handled or investigated trackage property, the situation with respect to trackage property in West Des Moines?

A. Oh, yes; in a general way, but not as to prices.

3496 Q. Do you know as to the supply, whether it is limited or otherwise?

A. I understand the last year or two it was somewhat limited.

Q. You understand the demand has been increasing right along and now for the last year there is difficulty in getting trackage property in West Des Moines?

A. I understand so, yes.

Q. Now, had you ever investigated the trackage property situation in East Des Moines with reference — fact that it has trackage property?

A. Yes, sir.

Q. In the district lying between East Fourth Street and the river and between Court Avenue and Market Street, is or is not the supply limited?

A. Court Avenue south?

Q. Yes, West of Fourth Street it is limited, isn't it?

A. Yes.

Q. It is limited, isn't it?

A. Yes.

Q. It is difficult, if not impossible to purchase any considerable amount in one body, isn't it?

A. Yes, I think it is.

Q. A great deal of the property lying in that district is owned by the railroads for railway purposes and not on the market?

A. Yes, that is true as far as the Des Moines Union is concerned.

Q. Isn't that true of the Rock Island and the Q also?

A. Yes, in those blocks it is limited. There seems to be no demand for it now; they are opening up new territory.

Q. Who is opening up new territory?

A. On the Rock Island.

Q. Where?

3497 A. On about Nineteenth, in there by Dean Lake.

Q. That is out as far as Twentieth Street?

A. Well, it is east, yes.

Q. You understood, didn't you, I was inquiring about the district west of Fourth Street and the river?

A. Yes.

Q. And south of Court Avenue to Market?

A. Yes.

Q. Let's talk about that alone then for a while—I am not inquiring about the outside territory; that district is inside, isn't it?

A. Yes, sir.

Q. Now, in making your valuation, I note you took Lots 3 and 4 in Block K?

A. Yes.

Q. And you have placed a valuation of \$9,900?

A. Yes, sir.

Q. Now, did you regard that as trackage property?

A. Yes, sir.

Q. All of it?

A. Well, together, the two lots together.

Q. You considered the two lots together?

A. Yes, sir.

Q. What did you consider Lot 3 worth?

A. Well, if I was going to separate them—I took them as a whole.

Q. What did you consider Lot 3 worth?

A. I don't know—in Block K, you mean?

Q. Yes.

A. If you was going to separate them it would not be worth so much?

A. Lot 3 would not?

3498 Q. Why not?

A. Because it would not have trackage frontage.

Q. You valued the lots together?

A. Yes, sir.

Q. And considered it all trackage?

A. Yes.

Q. Now, coming down to Block C, you took Lots 4, 5, 6, 7 and 8?

A. Yes.

Q. Did you value them together?

A. Yes, sir.

Q. All as one property?

A. Yes.

Q. Did you do that with all the groups of lots you have given?

A. Yes, sir.

Q. There was one group, Lots 7 and 8, that you did not value, or had not valued when you came into the court room, wasn't there?

A. 7 and 8 in B.

Q. 7 and 8 in Block B?

A. Yes, sir.

Q. You placed a valuation on them during your examination?

A. Yes.

Q. That was all the time you required for that?

A. Of course, I went over the whole property when I was over there but some way I neglected to include that.

Q. There has been in East Des Moines quite a noticeable increase in values owing to the construction of the new Locust Street bridge, the new City Hall, location of the Park, and the construction of the Walnut Street bridge, hasn't there been?

A. There was on Locust Street for a while, but it seems to have died down.

3499 Q. Well, I mean a permanent enhancement in value?

A. Oh, yes.

Q. Has there been?

A. It has not decreased the value any.

Q. Has the advancement been a permanent one?

A. Yes, I think so.

Q. How much, what per cent?

A. Oh, I think that is very meagre, especially property as far away as this is from Walnut Street.

Q. I am asking you about Locust Street now; I am inquiring how much that property on Locust Street from the river east to Fourth street has enhanced in value since the location of the City Hall and the opening up of Locust Street bridge for the last two or three years?

A. Well, I think it has pretty near doubled that property.

Q. On Walnut Street, how is it?

A. Well, Walnut Street it has added a good deal, but not so much as it will when it is opened.

Q. How much do you think?

A. I don't think it has added Walnut Street more than fifty per cent so far.

Q. How about Court Avenue, has it affected the value on Court Avenue?

A. I don't think so.

Q. So you didn't take into account any enhancement values of Court Avenue property or Vine Street property; you don't think they were advanced any?

A. No, that is a difference class of property.

Q. What do you think is the highest available use of the Gas Company's property, what is it best adapted for?

A. Well, it seems to be well adapted to the use it is being put to.

3500 Q. What other uses could it be put to?

A. It could be used for trackage purposes.

Q. You mean for manufacturing and storage?

A. Manufacturing.

Q. You think it is well adapted for that use?

A. For manufacturing, yes.

Q. You understand inside trackage property in West Des Moines is very limited, don't you?

A. It is controlled practically by one man, pretty near.

Q. That is only available for leasing purposes, isn't it?

A. Yes, sir.

Q. And you understand and so state that trackage property in the district from East Fourth Street west to the river and from Court Avenue south to Vine and Market streets is limited also?

A. Yes.

Q. You have murmured something to the effect that there is not much demand for trackage property?

A. I haven't had it.

Q. You predicate that statement upon your own experience?

A. In part, and talking with real estate men.

Q. When—recently, since this valuation began?

A. Well, in part—yes I have talked with them since this commenced.

Q. Did you consider the Gas Company's property any more valuable because of the quantity, the area in one body?

A. Oh, no; I don't consider it that way.

Q. You don't add anything for that consideration?

A. No.

Q. You regard it as if it were simply so many lots?

A. It is a very nice property.

Q. You regarded it as if it were simply so many lots?

3501 A. I can't say as I did by lots.

Q. How did you regard it?

A. I took it as a whole, in the groups in which I placed it.

Q. Why did you place it in groups?

A. On account of the way the lots lay and the way it is located between the two tracks.

Q. Suppose you had a customer who wanted two blocks and a half of ground in that territory from Fourth Street west to the river and from Court Avenue south to Market, would you have any difficulty in getting it together under one ownership?

A. Yes, sir; there I would.

Q. You couldn't do it, could you?

A. Not there, between the places you speak of, that is without buying established business.

Q. Suppose the Gas Company property was used as the other property in that district is used by established businesses, you would have difficulty in getting two blocks and a half or two blocks and a quarter?

A. Yes.

Q. You would have to pay a high price for it?

A. Yes.

Q. A good deal more than you have valued this property at?

A. Undoubtedly.

Q. Two or three times as much?

A. I have valued this ground, and not improvements. Of course if it was improved—

Q. Well, the improvements, except as the business is an established one, don't count for much on the properties down around there?

A. Well, there is some substantial improvements, for instance the Yeager plant there.

3502 Q. I am calling your attention to these matters in order to inquire whether you regard the gas property as of greater value because of the large body under one ownership, lying contiguously; you say you have not given that circumstance any consideration; shouldn't you have done so?

A. I don't think so, from the fact that there is but very few manufacturing institutions that want so large a tract of ground.

Q. But if there was no Gas Company in Des Moines and a Gas Company should come in here, then it would be a real live question, would it not?

A. Yes.

Q. From that point of view you should have given it consideration?

A. But there is other ground over there south of Elm Street that could be used at a much lower figure.

Q. Do you know anything about the requirements of use for gas manufacturing purposes?

A. No, sir.

Q. Why do you volunteer other ground, you know as a matter of fact that is below high water mark?

A. It is.

Q. And it would have to be filled to bring it above high water mark.

A. Yes, sir.

Q. Filling ground costs money?

A. You bet.

Q. Lots of money.

A. Yes, sir.

Q. That ground down there has no trackage facilities, has it?

A. Well, on the C. B. & Q., it does some.

Q. You couldn't get in there, you would have to go further south than that?

3503 Q. I wish you would glance at the card I gave you a moment or two ago. You recognize that picture, do you?

A. Yes, sir.

Q. You recognize in the foreground, first the Gas Company property, do you not?

A. Yes, sir.

Q. To the left is an open space with something piled on it?

A. Yes.

Q. That is the ground in Block T?

A. Yes, but that has not got them pipes on it now.

Q. I am only calling your attention to that ground. To the right are some buildings belonging to the gas plant?

A. Yes, sir.

Q. To the left and across the river is shown the Warfield-Pratt-Howell Grocery property?

A. Yes, sir.

Q. Immediately north of it the Brown-Camp Hardware Building?

A. Yes.

Q. Still north of that property is the Public Library Building?

A. Yes, sir. The Post Office is not shown here, is it?

Q. No. I wish you would take a pencil and make a cross where the Gas Company's property is shown.

A. (Witness makes cross.)

Q. You have made a cross on the property that is embraced within Block T?

A. Yes, comes up here. I don't know that it comes down that far though.

Q. Isn't this the front here?

A. Yes, the ground commences in here.

Q. The property lies in the picture to the right of the cross, 3504 doesn't it, the property marked with a cross?

A. Yes, sir; in Block C you mean—that is Block T in here; this is Block C in here.

Q. The Warfield grocery building, I wish you would put a cross there?

A. Yes. (Witness makes a cross.)

Q. I wish you would make a cross on the Public Library?

A. Yes. (Witness makes cross.)

Q. Lying between the Library and the Brown-Camp Hardware Building is now the new Post Office Building, in here?

A. Yes.

Q. And on the right and east side of the river is the new City Hall, not shown in this picture?

A. No, I think it is not shown here.

Q. The card which your attention has been called to and marked with the crosses indicating the buildings inquired of is now marked Complainant's Exhibit 62, isn't it?

A. Yes, sir.

The MASTER: I understand the location of the Gas Company's property is right immediately south of the Rock Island track on the east side of the river.

Mr. BRENNAN: The Gas Company's properties, yes, and running south down by the Burlington tracks.

The MASTER: And it includes the block south of that also?

A. Yes, sir.

The MASTER: And then further east is where Lots 9 and 10, or in other words the oil tanks are?

A. No, the oil tanks are in Block B; there may be some in C.

Q. Mr. Pease, by whom is the north half of Block A shown on the plat, Exhibit 5, owned, do you know?

(Question withdrawn.)

Q. Do you know the ownerships in that half block?

3505 A. I think the Company owns half of this in there.

Q. You mean the C. B. & Q.

A. No, I think the Gas Company owns some of that. If they don't, it belongs to the C. B. & Q.

Q. The C. B. & Q. owns the north half of the northeast quarter block?

A. It is marked so.

Q. Doesn't the Q. own also the north lot of the northeast quarter block?

A. It is marked that; that is all I know.

Q. You don't know anything about it outside of that?

A. I do not.

Q. Mr. Pease, it is your idea, I take it from what you have said, that actual sales fix the price of real estate?

A. Well, in a measure, that is the only way we can judge—one of the ways.

Q. Accordingly you have judged the value of the Gas Company property by the sale to the Yeager Manufacturing Company?

A. The demand down there is very limited.

Q. Answer the question. So you in fact have valued the Gas Company property on the basis of the sale to the Yeager Manufacturing Company?

A. Oh, yes; largely, well not on that entirely; no sir, on other property there.

Q. What other property then have you used?

A. Well there has property been sold in Block 1—the Shepherd and Nicholas property there was sold.

Q. How lately, when was the sale made?

A. Within a year, I think.

Q. How much property?

A. A quarter block there.

3506 Q. That fronts on what street?

A. On Fourth Street; that is not shown on the plat.

Q. There was a quarter block sold to the Nicholas Shepherd Company?

A. No, sir; from them to the Yeagers; that of course has more expensive buildings on it.

Q. When was that sale made?

A. In the past year; I think this last spring.

Q. In the spring of 1911.

A. I think so; that is my understanding. I had it for sale last year and I couldn't make it; they came on here and took it up.

Q. That was a sale from the Nicholas Shepherd Company to the Yeager Manufacturing Company?

A. Yes, sir.

Q. Of a quarter block?

A. Yes.

Q. At what price?

A. I understand it was \$35,000.

Q. That included the buildings?

A. Yes, they claimed, the agent—

Q. Never mind what the agent claimed. All you know about it is what you have been told?

A. Yes, and the price I had on it.

Q. What price did you have on it?

A. Well, my customer wanted time—

Q. What price did you have on the property?

A. I think it was \$35,000 or \$37,000; I don't just remember.

Q. What other property did you have in mind, what other sales, rather?

A. Well, that has been the only recent sale I can recall; of course there was property back there sold—

3507 Q. So that you had in mind fixing the price largely, the sale of the quarter block by Mr. Ankeny or the Oil Company to the Yeager Manufacturing Company, and also the sale by the Nicholas Shepherd Company?

A. Well, I wouldn't want to be quited as using the Shepherd and Nicholas property, because that is differently situated.

Q. Then it comes down to the sale of the quarter block of the Oil Company or Ankeny to the Yeager Manufacturing Company?

A. And the other sale made there.

Q. What other sale?

A. I understand, three and four in K, that is the one the Company owns.

Q. That was made some years ago?

A. Yes.

Q. How many years ago?

A. The Gas Company officials undoubtedly know.

Q. Will you answer the question?

A. I can't say.

Q. What is your understanding of it?

A. Well, a few years ago; I don't know how many.

Q. A few years ago?

A. Yes.

Q. Four or five?

A. I wouldn't say.

Q. You had in mind then those two sales as fixing the price over in that vicinity?

A. I had it in part, yes sir.

Q. You say in part, now what was the rest of it?

A. The property in Block C is higher property, the lots are higher and to be considered worth more money.

Q. So you have added something, have you?

3508 A. Yes, sir.

Q. Let us see how the case stands. You took the selling price on the quarter block sold by the Oil Company to the Yeager Manufacturing Company and also the price at which Lots 3 and 4 in Block K sold some years ago, as fixing the basis of the valuation or price.

A. In part, yes sir.

Q. And then you added nothing on account of recent appreciation—in your judgment there has been no appreciation; you added nothing on account of recent appreciation?

A. Why, yes; I think I did.

Q. You just stated as to Lot C, because it is higher ground you considered that more valuable; I mean you add nothing on account of recent appreciation in real estate values in East Des Moines?

A. Well, I certainly did; I certainly have; I understand this property here was sold for \$7,000; my appraisement is \$1,900 more than that.

Q. Whatever difference you have made over and above the prices as fixed by these two sales, is your judgment as to the appreciations in value recently except as to Block C, and that is filled and a higher level?

A. So is B filled.

Q. Except as to those blocks then on account of filling?

A. Those are filled perfect almost.

Q. You have allowed additional value on account of that?

A. Yes.

Q. You have allowed no additional values on any property by reason of any recent appreciations in value?

A. I think so, yes sir. I think the prices I fixed there are above——

Q. What was the price of the oil property sale to the
3509 Yeager Manufacturing Company in K, how much a front foot?

A. Not the Yeager, you don't mean.

Q. I mean the one you have been referring to in Block K?

A. 3 and 4?

Q. No, I don't mean that. I have been understanding you to say that there was a sale of a quarter block to the Yeager Manufacturing Company; that is in another block, is it?

A. Yes.

Q. It ain't shown here?

A. It is in the block east of K.

Q. Well, what was the price per front foot on that sale?

A. That was 132 feet.

Q. How much would that be a front foot now; what was the total price?

A. \$8,000.

The MASTER: That would be \$50 a front foot?

A. Yes.

Q. Then the difference in the valuations of the Gas Company property as given by you measures your estimate of the appreciation, does it?

A. Well in part, yes.

Q. That is, aside from the difference on account of Blocks C and B being graded is that right?

A. That is the way we estimate——

Q. Is that the way you estimate the enhancement of its values recently?

A. Of course we estimate our values from the sales largely in any locality.

Q. Let us go back over the ground again. The quarter block in the block east of K sold to the Yeager Manufacturing Company was sold for fifty dollars a front foot?

3510 A. Well, \$8,000.

Q. You have placed a higher valuation per front foot on the Gas Company property?

A. Yes.

Q. So far as Blocks B and C are concerned, you regarded them as more valuable because they are located and graded to a higher level?

A. Yes, sir.

Q. But aside from that consideration the difference in the price per front foot between the sales to the Yeager Manufacturing Company in the block east of Block K measures the enhancement in value recently of the property?

A. Why, it don't measure the enhancement.

Q. Measures your estimate of the increased value?

A. I said those lots were higher lots and worth more on that account.

Q. I have just said, aside from the increased value owing to that situation, the difference between the values you placed on these properties measures your estimate of the increased values since the sale to the Yeager Manufacturing Company has been made.

A. I don't think there has been any increased value.

Q. Why did you knock the price up then?

A. Because they are higher lots.

Q. Why did you mark them up?

A. Why that is frontage.

Q. Why did you mark up the values there?

A. I should say I gave a very liberal estimation.

Q. That is your nature and disposition—I want to get at it more intimately. You have said there has been no increase in values over there?

A. I don't think there has been in the last year.

Q. Yet you have given an increase of value over and
3511 above the basis of your sales?

A. Yes.

Q. I am asking you to explain why you did that; As I understand you it was out of extraordinary liberality and generosity on your part?

A. Yes, largely.

Redirect examination by Mr. BRENNAN:

Q. Now, Mr. Pease, your attention has been called to Exhibit 62 that seems to be a panoramic view of certain portions of the Des Moines river, and it appears that the camera which took this picture was located somewhere in the vicinity of the Gas property; this picture shows the east bank of the river on the right hand side of the picture looking north?

A. Yes.

Q. On the west bank of the river are the buildings to which your attention was called?

A. Yes.

Q. The library building, where the new Post Office is now located, and the Warfield-Howell Grocery house and the Brown-Camp Hardware house?

A. Yes, sir.

Q. Now this shows a beautiful picture here of parks and blue roofs and all that sort of thing—does it show Mr. Rubenstein's junk pile near the Second Street bridge; do you see that on the picture?

A. No, sir.

Q. Or the American Iron Works where the boilers are stored out on the river bank?

A. No, sir.

3512 Q. The Capitol Building is not shown on this picture, is it?

A. No, sir.

Q. Well, this is a river view printed on a post card?

A. Yes, sir.

Q. Can you see the battered stacks of the Edison Electric Light Company?

A. Yes, sir.

Q. Where is that?

A. That is up north of the Library Building.

Q. There are no summer resorts that you know of located in this immediate vicinity?

A. I don't recognize any.

Q. Well, now your attention was called, or you stated rather, that the Rock Island Railway Company had opened up a new factory district, or manufacturing district in East Des Moines, just where is that located?

A. Near Dean Lake; I understand they bought 20 or 24 acres there.

Q. What is the fact, Mr. Pease, as to there being at this time available sites for manufacturing purposes in East Des Moines?

Objected to on part of Complainant as being immaterial.

A. Plenty of them.

Q. Just indicate where they are located?

A. Along the Rock Island or Wabash. I am dealing now for 20 acres on the Rock Island, east; there is plenty outside of the existing part of the city.

Q. What is the fact as to there being sites of that character along the right of way of the Chicago Great Western and the Des Moines & St. Paul Railways, running north and in a northeasterly direction?

A. Plenty of them.

3513 Q. Now did you testify anything concerning the property on the northeast corner of First and Court Avenue which was purchased by the Lorenz III estate?

A. That is Court Avenue and what?

Q. And First Street, immediately across the street from the Des Moines Manufacturing & Supply Company?

A. I am not posted on that deal.

Q. Do you know whether that was purchased within the last year?

A. No.

Q. You are not familiar with that property?

A. No.

Q. Now this Yeager Manufacturing Company, where is that property which they purchased located?

A. On Fourth and Vine, between Vine and between the Des Moines Union and the Rock Island on Fourth.

Q. It is between the Des Moines Union Railway and the Rock Island Railway?

A. Yes.

Q. Near Fourth Street?

A. Fronts on Fourth Street.

Q. On which side of Fourth Street?

A. On the west side.

Q. How far is it from the gas property?

A. Oh, it would be three or four blocks; about three blocks.

Q. That is from the front?

A. From front street. Well, it would be nearly four, about four blocks I think.

Q. Take it from the east line of the Des Moines Gas Company property, where would the west line of the Yeager Manufacturing Company be?

A. Well, that wouldn't be more than a block I don't think; taking them two lots in K, it wouldn't be much over a block.

Q. That you say was purchased for \$50 a front foot?

A. I have reference to their big building they sold; you have reference to the two lots.

Q. Yes.

A. That would be different. I didn't understand that; I would have to be corrected on that. I supposed you meant the other on Fourth Street.

Q. I mean the property which they purchased recently.

A. Well, take it on First Street, it wouldn't be only two blocks from First Street.

Q. How far would it be from the east line of the property of the Des Moines Gas Company?

A. Just a quarter of a block.

Q. Did you state the price at which that property was purchased by the Yeager Manufacturing Company?

A. \$8,000.

Q. How much frontage?

A. 132 feet.

Q. 132 feet square?

A. Yes, sir.

Q. It has trackage facilities?

A. Yes, sir.

Q. On what railroad is it situated?

A. The Rock Island.

Q. The main line of the Rock Island?

A. Yes, sir; on the main line.

Q. Is that the property sold by the Oil Company?

A. Yes, sir.

3515 Recross-examination by Mr. READ:

Q. Mr. Pease, when you said there is plenty of trackage property on the Great Western and the other roads, you referred to property in the outlying districts?

A. Yes, sir.

Q. Away out?

A. Inside of the city limits.

Q. And out a mile or two; Dean Lake is out at Twentieth Street?

A. It is outside of the thickly settled part.

Q. The Yeager Manufacturing Company is not using these two lots now?

A. No.

Q. Just holding them?

A. Yes.

Redirect examination by Mr. BRENNAN:

Q. Mr. Read said a mile or two; the country which is being developed by the Rock Island Railway Company is about Eighteenth street you say?

A. That is out further than that. It would be out about Twenty-second street, I should judge, south of Dean's Lake there; on the south side of Dean's Lake.

The MASTER: That is where the new cut-off is?

A. Yes, sir.

The MASTER: That is on the other side of the river?

A. On the east side.

The MASTER: At what point do they leave and turn south?

A. They leave, this Des Moines Northern I suppose they would be continued south, they have additional ground there, I know, in there to the southeast.

3516 Q. Well, it is a fact, Mr. Pease, as you approach East Eighteenth street between the Des Moines Union and the Burlington tracks, there are what is called crossings there; the Great Western crosses some other tracks at that point and the Des Moines & St. Paul which has been recently acquired by the Rock Island, parallels the Great Western tracks some distance north?

A. Yes, sir.

Q. That is the point you referred to?

A. Yes.

Q. That would be about East Eighteenth Street or Twentieth Street?

A. The crossing would be about Twentieth Street, yes.

Q. The Rock Island and the Wabash and the K. D. division run parallel to each other, and the Great Western crosses the tracks at or about that point, going in a northeasterly direction?

A. The Great Western I don't think crosses the other tracks.

Q. It is north of these other tracks?

A. It is north.

Recross-examination by Mr. READ:

Q. What is it you say is being done out there?

A. Well, the ground the Rock Island lately purchased, I understand, on Deans Lake,—you know where Deans Lake is I suppose—

Q. What has been done, what has it been purchased for?

A. For the Rock Island.

Q. For what use?

A. That I couldn't say.

Q. What have you been telling us here?

A. I suppose they done it for trackage.

Q. You supposed that; that is all the information you have?

A. Yes.

Q. Just your own inference?

A. Yes.

Q. Don't you know the Rock Island is making a terminal site, is buying it for a terminal site for the new Des Moines & Mason City & St. Paul line?

A. Well, I don't know.

Q. Don't you know the company has been buying a small piece of ground from the Street Railway Company for the purpose of establishing a terminal site out there?

A. I understand the Soap Company has bought a piece of ground out there?

Q. What Company?

A. The Prouty Soap Company.

Q. What did you infer from that?

A. The Prouty Soap Company, I understood in the last few days, has bought three acres out there or such a matter.

Excused.

Complainant offers in evidence Complainant's Exhibit 62, being the post card identified by the witness.

Objected to on part of defendants as incompetent, irrelevant and immaterial.

3518 ANDREW SANGSTER, being first duly sworn on part of defendants, examined in chief by H. W. Byers, Esq., testified:

Q. Where is your present residence?

A. In Chicago.

Q. How long have you lived there?

A. Since January of this year.

Q. Of what country are you a native?

A. Scotland.

Q. How long have you been in this country?

A. Since January.

Q. Have you ever been on the witness stand before?

A. No, sir.

Q. What is your occupation or business?

A. I am a chartered accountant.

Q. How long have you been such?

A. Since 1905.

Q. I wish you would state into the record in your own way just what training and experience you have had as a chartered accountant?

A. I entered the profession in 1897 and became an apprentice or was indentured in 1902; I qualified in 1905 and became a member of the Edinburg Society of Chartered Accountants in Scotland. Since that time I have been employed taking charge of private and public companies, such as commercial, industrial and financial, and

in making investigations in the accounts of companies, proposing to offer shares to the public, that is to say, inquiring into the profit and loss accounts of these companies for the purpose of certifying the profits over a period of years.

Q. As I got it, you commenced your training as an accountant in 1902?

A. Yes; well I have been in an accountant's office since 1897. I did not go in for the qualification until 1902.

Q. With whom are you employed now?

A. Marwick-Mitchell & Company of Chicago.

Q. How long have you been with them?

A. Since I came to this country.

Q. What are your duties with Marwick-Mitchell & Company; what part of their work do you do?

A. Much the same as I have described; taking charge of auditing and investigation work.

Q. Since you have been here in this country, have you been engaged in the business of examining and investigating books and records of companies and corporations and municipalities?

A. Yes, sir; ever since I have been busily engaged in that work.

Q. When did you first come to Des Moines?

A. July 14.

Q. And for what purpose did you come here?

A. For the purpose of making an investigation of the accounts of the Des Moines Gas Company and the Capital City Gas Light Company.

Q. Under whose supervision did you, or rather at whose direction did you come to Des Moines?

A. At the direction of Mr. James Hall, senior partner of Marwick-Mitchell & Company of Chicago.

Q. That is the Mr. Hall who testified here?

A. Yes, sir.

Q. What if anything have you done in the way of examining or investigating the books and records—I don't mean in detail now; as to whether or not you have examined and investigated the books and records of the Des Moines Gas Company?

3520 A. Yes.

Q. What part of that work did you have in charge, if any part of it—were you at the head of the force that was here?

A. Yes, I was in charge of the work.

Q. How many helpers did you have?

A. Three.

Q. Who were they and who were they working for?

A. They were also in the employ of Marwick-Mitchell & Company.

Q. What do you have to say as to whether they were competent young men for the work they were doing?

A. In my opinion they were quite competent for the work which was entrusted to them.

Q. You say you came to Des Moines on the 14th of August?

A. The 14th of July.

Q. Now I wish you would state to the Master just the scope of your examination and investigation of the books and how much of it you inspected and checked yourself?

A. The scope of the work included the following: Prepared all balance sheets of the Capital City Gas Light Company as of July 1, 1886, and January 1, 1895; balance sheets as at February 28, 1906, of the same company; a series of balance sheets of the Des Moines Gas Company as at March 1, 1906, February 28, 1907, 1908 and 1909, and December 31, 1909, and 1910. These last being shown in the exhibits to Mr. Hall's report, Exhibit 30 I think. The additions to the plant since January 1, 1895, which was taken as a starting point, were analyzed; so also were the additions to the plant under the operations of the Des Moines Gas Company, and these latter additions were vouched or checked. Analysis was also made of the profit and loss accounts of the Des Moines Gas Company for the five years ending December 31, 1910. I think that includes all of it.

Q. In what way, if at all, was this examination and investigation and the analysis that you refer to worked out, that is, was a complete written memoranda of the work made?

A. Yes, there was.

Q. What do you have to say as to whether that memoranda is contained in the report furnished by Mr. James Hall and marked in this case as Exhibit 30?

A. These are all contained in that report.

Q. Now did this examination and investigation cover all of the accounts of the Des Moines Gas Company from 1906 down to December 31, 1910.

A. Yes, sir.

Q. And what do you have to say, whether it covered every item of either charge or credit that appears upon the books?

A. It embraces all entries on the books.

Q. And was complete as to every item?

A. Yes, sir.

Q. Now, in this examination, you may state what you have to say as to whether or not you made up tables for the purpose of determining the cost of the manufacture of gas and all of its details and reduced the same to schedules and writings?

A. I did.

Q. How much, if anything, did you have to do with making up Exhibit 30, that is, Mr. Hall's report?

A. I prepared all of the Exhibits and schedules shown in that report and which formed the basis for the report.

Q. What do you have to say, whether you personally checked those items and since have checked them back with the books, so that you know they are correct as they appear in that Exhibit 30?

A. I did so, either personally or it was done under my direction.

Q. What do you have to say as to whether they are correct as they appear in that report?

A. They are correct, subject of course, to the adjustments which Mr. Hall made.

Q. I am referring to the matters that purport to have been taken from the books?

A. Yes, sir; those are correct.

Q. Now how much time have you devoted to an effort to check up all these items to be sure that nothing had been overlooked and nothing had been added, aside from these adjustments you are talking about?

A. You mean as to time?

Q. I want to know how diligent and how much effort you put forward to furnish Mr. Hall an accurate statement of the books and records and accounts?

A. Well, I used every care and caution in the work consistent with my experience.

Q. After the thorough examination of Mr. Hall, especially the cross examination, and the time he devoted here upon the witness stand, as the character of his report developed, were you watching it to check up errors or mistakes?

A. I was.

Q. How many did you find?

A. With one exception, I didn't note any.

Q. And that exception was as to the item of loss and damages that was set back into some former period?

A. Was not set back.

Q. Now, in examining these books, Mr. Sangster, I wish you would state whether you found upon them continuous running accounts, both as to the Capital City Gas Light Company and the Des Moines Gas Company, with the U. G. I., the United Gas Improvement Company?

A. Yes, the books were a continuous record of the transactions of the company.

Q. You do not quite catch the drift of the question, I think, Mr. Sangster, although the answer is perhaps sufficient. What I wanted to know is as to whether or not you found on the books a continuous open account, first with the Capital City Gas Light Company and then later on with the Des Moines Gas Company, of the United Gas Improvement Company?

A. Yes, I did.

Q. Did the books and records of the Des Moines Gas Company apply alone to the city of Des Moines, as you found them, or did they cover Valley Junction as well?

A. They covered Valley Junction.

Q. And so far as the journals and ledgers and account books or records were concerned, did you find any place where the operations applying to Valley Junction were separated from the Des Moines operations?

A. Not in any of the books which I examined.

Q. That is to say, the record of the amount of gas manufactured does not show the amount for Valley Junction and the amount for Des Moines?

A. Oh, yes; as regards gas statistics they are quite clearly stated distinctly for Valley Junction.

Q. That is the amount of gas furnished?

A. Yes, sir.

Q. Now with reference to the accounts, general expenses, office expenses and manufacturing and all that class of expenses, and
3524 distribution, is that made up in the books separately, so that you could tell what should be charged to the Valley Junction end of the business and what should be charged to Des Moines?

A. No, it is not stated separately, and I don't see how they could arrive at any distinct proportions to be charged against Valley Junction.

Q. First state in the record, just what item, if any, aside from the gas statistics, you found recorded in the books anywhere that applied alone to Valley Junction?

A. Apart from these gas statistics I don't think there was anything in the books which showed an expenditure properly applicable to Valley Junction.

Q. What was there, if anything, on the books with respect to the Valley Junction plant? Do you remember any item?

A. Apart from the \$45,000 paid for the plant in March 1, 1906, there was nothing else.

Q. Now in going through the books of the company, what if anything did you find from them indicating the payment to the city of Des Moines of a tax on gross sales?

A. Special city tax?

Q. Yes.

A. That was paid regularly.

Q. You found such an item, two cents?

A. Two cents.

Q. On the gross revenue?

A. On the gross receipts rather.

Q. That was not separated from the Valley Junction business, was it in any way?

A. No, not in the books.

Q. So that the tax, as you understand it, was paid upon the
3525 entire output?

A. Yes.

Q. Did you find anything in the books anywhere—I am speaking of the books now, the regular office books, account books and the books showing the cost of material and manufacture—what if anything did you find in the books that would indicate, either to you, or could be pointed out to us, as to the character and extent of the extensions that have been made to the Valley Junction plant in the last five years, any charge in the general account of the Des Moines Gas Company?

A. On the books, I find nothing which would indicate to me how much of the construction account applied to Valley Junction.

Q. Now did you think to go into the authorizations that are filed there in the office to try to get the character and extent of the additions and extensions to the Valley Junction plant in the last five years?

A. No, I did not.

Q. Your attention up to this time had not been called to the fact that information might be gotten in that way?

A. It didn't occur to me.

Q. I wish you would, for me, after you are through with the witness stand, refer to the authorizations that you find up there, unless I am mistaken, as to what they show or they will indicate on their face the character of the improvements and the streets on which the improvements are to be made. I think you can tell from the street, with some help, whether it is in Des Moines or Valley Junction.

I would like to inquire whether the Des Moines Gas Company minute book is here?

Mr. GUERNSEY: I think it is.

(The minute book is produced.)

3526 Q. The book I just inquired about is Exhibit 27. Now

I will call your attention, Mr. Witness, for the purpose of aiding me in getting me that further information in this Exhibit 27, which is the Des Moines Gas Company No. 1 Stockholders' and Directors' Meetings, you will find carried through it what I assume to be copies of these authorizations. To illustrate, I find one here referring to certain mains on East Seventeenth Street, Vail Street, Raccoon, East Eleventh, Logal, Hillside, Bloomfield Avenue, and so on. Do you remember whether anywhere in the books there is anything to indicate just where these meters go that are entered up in the totals, whether to Des Moines proper or Valley Junction?

A. There was nothing to indicate.

Q. Whatever information you can get along that line for me later on, I wish you would get. Now you have stated, you prepared an abstract of the books covering the five year period of the Des Moines Gas Company's operation, that is, such of the five years as you have covered up to the 31st day of December, 1910, for the purpose of making an analysis of what the books show and ascertain the cost of manufacturing and distributing gas in Des Moines. Now in addition to that have you prepared tables and figures covering a period of some years back of 1906 beginning with the existence of the Des Moines Gas Company, for the same purpose, of working the cost for manufacture and distribution price to that period?

A. Yes, for the years 1904 and 1905.

Q. To whom did you furnish those figures?

A. To Professor Bemis.

3527 Q. Now did you go over these tables and assist in making up these figures and schedules and the analysis of the cost for manufacturing and distributing gas as they appear in Exhibit

30?

A. Yes, I prepared these exhibits myself, or checked them where I did not prepare them.

Q. What do you have to say as to their being correct?

A. They are correct as taken from the books.

Q. Now did you have any conversation with the managing offi-

cers of the Gas Company about what you wanted to do and as to the books and papers you wanted to examine and so on?

A. Yes.

Q. What do you have to say, whether they understood perfectly what you were there for, and you explained it to them, did you?

A. There was no doubt in my mind they understood the purpose of my visit to that office.

Q. I suppose whatever you asked for they furnished to you?

A. Yes, except where we may have stated to the contrary in the report; Mr. Hall may have stated to the contrary in his report, that certain productions were not produced to us.

Q. Well, as I remember it, about the only thing of importance was the item of \$120,000 that involved, or rather one of the holders down here?

A. Yes; the particulars of the claims for accidents and damages were not produced until this report was practically completed.

Q. Aside from that they furnished you what you asked for, that you thought was necessary to make a complete transcript or abstract of the books of the company?

A. Yes.

Q. For the purpose for which you were directed to make the examination?

A. Yes.

3528 Q. Is that right?

A. That is right.

Q. What do you have to say as to whether Exhibit 30 as made up by yourself and Mr. Hall and the other young men that you had charge of, does show in the figures and tables and schedules and exhibits attached thereto the cost of manufacturing and distributing gas at this plant here as it is shown by the books of the Des Moines Gas Company?

A. Yes, they show these costs as made up from the figures taken from the books.

Q. What do you have to say as to whether Exhibit 30 contains a complete and accurate transcript in these numerous tables and schedules and exhibits of all of the book entries of the Des Moines Gas Company so far as you were able to find them, showing the investment in the property of the Des Moines plant?

A. They do; subject to the adjustments made and stated by Mr. Hall in his report.

Q. Well not subject—these adjustments of course are in addition to what the books show?

A. Yes.

Q. But the report is a complete and accurate abstract of the books and all of the entries as they relate to the cost of distribution of gas as appears in this Exhibit 30?

A. That is so.

Q. Did you make some inquiry about this holder that has been referred to several times or did Mr. Hall do that?

A. Yes, I did that myself; Mr. Hall may have made certain inquiries in addition.

Q. To whom did you direct your inquiry?

A. To the comptroller.

3529 Q. That was Mr. Curran?

A. Mr. Curran.

The MASTER: He resides here or in Philadelphia?

A. Philadelphia, I believe.

Q. What relation do you understand Mr. Curran bears to the United Gas Improvement Company?

A. I don't know just what position he holds with the United Gas Improvement Company.

Q. You call him comptroller; is he comptroller of this company or the United Gas Improvement Company?

A. As I understand it, he is comptroller of the auditing department of the United Gas Improvement Company.

Q. What response did Mr. Curran make to you about the holder?

Objected to on part of complainants as secondary and hearsay and not competent as against this company.

A. He said he thought there must be some contracts outstanding including this holder which was not shown on the books; he had no information.

Q. And since then have any of the managing officers of the company furnished you any further information about it or assisted you in any way trying to ascertain the truth about the holder its cost and so on?

A. No, nothing.

Q. Now in going through these books, can you tell me from memory now just what amount of cash monthly receipts come from these cash meters; does that appear anywhere in this report—prepayment meters?

A. Proportion of cash receipts?

Q. The amount of money that is received monthly or about the amount of money that is received monthly by the Gas Company from these prepayment meters, does that appear in the report anywhere?

3530 A. Exhibit A shows the proportions.

Q. What does it show with respect to that?

A. It shows the receipts of the regular meters and prepayment meters.

Q. What is the amount of the prepayment meters in any one year?

A. Take the last year, the amount from the regular meters was \$339,454.28 in Des Moines; from the prepayment meters the revenue was \$204,330.

Q. It doesn't show it by the month?

A. No.

Q. Is there any place in the report it is shown by the month?

A. No, sir not in the report.

Q. But it is shown by years?

A. Yes.

Q. Do you have any memoranda in which it is shown by the month?

A. Yes, I think I have.

Q. You may look that up for me too. In going through the books and records of the Company, did you find any evidences of any special privileges to the consumers here in Des Moines in the way of putting in mains or in any other way?

A. Nothing which I would call in the nature of special privileges.

Q. Did you find anything that indicated mains were put in and money deposited by the consumers for the payment of mains?

A. Yes, sir; certain portion of the mains put in the company received deposits in advance.

Q. Did you find anything that indicated the Gas Company put in gas extensions for real estate men under some special arrangement?

A. No, I did not.

Q. You don't remember such?

3531 THE MASTER: Were those mains or services you refer to where the money was deposited?

A. I understand they are mains; that is my understanding.

Q. Now, Mr. Sangster, do you remember when this report that has been exhibited in this case, Exhibit 30, was first handed to counsel and the officers of the Des Moines Gas Company?

A. I don't know.

Q. About when?

A. There were copies made which I handed to Mr. Curran just before Mr. Hall went on the stand.

Q. You handed those to Mr. Curran just before Mr. Hall went on the stand?

A. Yes.

Q. Has Mr. Curran, Mr. Douthirt, or any of the officers interviewed you since then to call your attention to any errors in your tabulation or tables or accounts you have shown them?

A. No, sir.

Cross-examination by N. T. GUERNSEY, Esq.:

Q. These extra copies were made under arrangement with the City by which as a matter of convenience they could be made by your office and then turned over to the Company, or the complainant here when the report was produced as testimony?

A. Yes, sir.

Q. Now have you seen all the exhibits that have been introduced by the complainant in this case?

A. Yes.

Q. Have you checked them over to find errors in them?

A. Well, I don't know that; I did check them over; I don't know that you would call them errors.

3532 Q. Did you call the attention of Mr. Curran or anyone on our side of the case to any discrepancy that you found in them?

A. No, sir.

Q. You did not consider yourself under the remotest obligation to do it, did you?

A. I did not.

Q. What is your age, Mr. Sangster?

A. Thirty.

Q. How many Gas Companies have you examined?

A. None previous to this.

Q. How many public utilities have you examined prior to this one; I mean by that corporations engaged in furnishing service to the public, like gas companies, water companies, street railways, telephone companies and electric light companies?

A. Well, if you call the electric traction companies and tram-way companies, not directly under the control of a municipality, but whose maximum fares were fixed by the municipality, I have made such investigation.

Q. What companies were they?

A. Companies in Scotland.

Q. How many have you examined in this country?

A. None.

Q. Now, as I understand your statement, the scope of your work which included balance sheets of the Capital City Gas Light Company of July 1, 1886, and January 1, 1895, and February 28, 1906; is that right?

A. That is right.

Q. Then the balance sheets of the Des Moines Gas Company, March 1, 1906, and then February 21, 1907, 1908, 1909, and December 31, 1910?

3533 A. And 1909; there was a ten month period from February 1909 to December 31, 1909.

Q. Then you made up this five year profit and loss account?

A. Yes, sir.

Q. Or went over it?

A. Yes, sir.

Q. And you analyzed the additions since January 1, 1895, and you said vouched them where they were made by the Des Moines Gas Company?

A. Yes.

Q. By that you mean you checked them by the vouchers as to the latter company?

A. Yes, sir.

Q. Where did you do this work in Des Moines?

A. In the Gas Company's office.

Q. The Gas Company furnished you a room?

A. It did.

Q. Outside of the regular office?

A. Yes, outside of the regular office.

Q. But the Gas Company furnished you the room?

A. It did.

Q. The Gas Company also furnished you the books and the vouchers?

A. Yes, sir.

Q. It also furnished you some one to tell you where these entries were and that sort of thing, where the vouchers were, to help you to find the things?

A. Yes, sir.

Q. The Gas Company also furnished you an itemized statement of the profit and loss account for the five years?

3534 A. Well, yes, they did.

Q. Is this paper, marked Exhibit 24, a copy or reproduction of the statement that was furnished you by the Gas Company to aid you in your work of checking there?

A. Well, it seems to be; I couldn't say until I compared the two.

Q. I do not ask you to vouch for the accuracy of the figures, but it is apparently the same thing?

A. It is made up on the same lines, yes.

Q. And that was furnished you by Mr. Curran voluntarily?

A. Voluntarily, yes.

Q. And it was stated by him at the time, wasn't it, that he furnished it because it might aid you in checking these things out?

A. Yes, sir.

Q. And it was of some assistance to you in getting at things and checking and comparing your statement with the statement of the Gas Company?

A. Not very much.

Q. Not any?

A. I had to make up my statement, which was taken from the books.

Q. This copy or exhibit was a convenience to you, wasn't it?

A. Yes, it might have been.

Q. It was as a matter of fact, wasn't it?

A. I did not compare the statement Mr. Curran gave me from the books, I made up my own statement.

Q. I ask you whether this statement Mr. Curran gave you was not of convenience to you in doing your work?

A. It may have been of some slight assistance.

Q. You found, didn't you, so far as the books went, Mr. Curran's statement was correct?

A. Absolutely.

3535 Q. The only difference you made was on account of adjustments which you made of various items?

A. Exactly.

Q. For how long a period did the Gas Company furnish you an office?

A. About five weeks.

Q. And for how long a period did it furnish somebody to aid you in making your investigation?

A. The same period.

Q. It also furnished you incidentals, that is, furnished you paper to work with, from which you could make your statements and things like that, didn't it?

A. I did run short of paper one time and Mr. Curran very ac-

commodatingly gave me a small supply, but I did not depend on the Gas Company for paper.

Q. How much of Exhibit 30 did you write?

A. You mean the body of the report?

Q. The whole thing?

A. I constructed the exhibits and schedules.

Q. They are all your work?

A. Yes. So is the chart. I wrote pages 2 and 4 which Mr. Hall revised; that is all.

Q. That is the historical matter?

A. Yes.

Q. Now, then, you said on your direct examination that you made a complete written memoranda of this investigation or audit—which was this, an investigation or audit you made?

A. An investigation.

Q. That you made a complete written memoranda that was all contained in Mr. Hall's report; that isn't true is it?

A. No; summaries of this memoranda are contained in 3536 the report.

Q. Have you these memoranda here?

A. Yes, I have.

Q. Now, it would not be correct to say that Mr. Hall's report contains everything; it is simply conclusions that are deduced from those things that you reported?

A. Yes, sir; they could not possibly contain all the memoranda.

Q. I understood you to say that it did?

A. I had in mind just what was intended by the question.

Q. We can't tell what you mean except by what you say.

A. Well I thought it was fairly obvious.

Q. Whenever you say in your examination that the report shows what the books show, that is always subject to the exception that grows out of your adjustments?

A. Yes, I think I maintained that.

Q. And of course the books do not show your investment balance you start with on January 1, 1895, the investment entry there?

A. No, they don't.

Q. Now, you were asked whether you found a continuous account with the United Gas Improvement Company. You said you did; why was not that referred to in the report Exhibit 30?

A. I do not think that I am responsible for the treatment of the report.

Q. Didn't you help make it?

A. Yes, sir; except where I have stated——

Q. What were you doing with Mr. Hall here Saturday, Sunday and Monday down at Colfax, just before he went on the stand? weren't you working over this report?

A. No, sir.

Q. Doing nothing?

A. I wasn't working on the report; I was doing other
3537 matters.

Q. Working on something in connection with this case?

A. Yes, sir.

Q. What matters were you working on?

A. Preparing certain statements that had to do with complainant's Exhibit 26.

Q. Making up this Exhibit 23?

A. Not exactly making it up; preparing for Mr. Hall's information certain statements; he may not have produced them, but for his information.

Q. Did any of your adjustments have to do with this account with the United Gas Improvement Company?

A. No, sir.

Q. So far as you were concerned you found that to be right?

A. That account?

Q. Yes.

A. Yes.

Q. Anything abnormal or suspicious about it?

A. Anything abnormal or suspicious about it was referred to in the report and such as was brought into prominence by Mr. Hall.

Q. Whereabouts in the report is this account referred to?

A. No where.

Q. Was there anything abnormal or unusual about this account?

A. Well, these replacement values, a great portion of the sums charged against replacement values was credited up to the United Gas Improvement Company.

Q. That is something you threw out?

A. Yes.

Q. Did you throw that out when you made your report?

A. Oh, no; it was on my statements; I didn't throw it out.

Q. Have you got your original memorandum making up
3538 your operating cost for the year 1910?

A. Yes, sir.

Q. Let me see it, will you?

A. I haven't got it here.

Q. Will you produce it so that we can look at it?

A. Yes.

Q. When you made up that account, did you exclude this item of \$5,900 and some odd dollars on account of replacement valuations?

A. Possibly I may, but I did under direction, if I did so.

Q. Do you remember whether you did or didn't?

A. I really don't remember whether the statement excluded it or included it.

Q. Under whose direction did you do it?

A. Mr. Hall's.

Q. Did Mr. Hall know about the item before you made up the account?

A. Yes, sir.

Q. How could he know about it?

A. Mr. Curran produced the statement you previously referred to as we started out on our preliminary survey of our account; that item was stated separately and easily noticed.

Q. It was not concealed?

A. Mr. Hall's instructions was to make up that item, excluding that item.

Q. Did you have any conference with Professor Marks while you were making up these statements?

A. Professor Marks did ask me a few questions.

Q. Did you have any conference with Professor Bemis while making up the statement?

A. Yes, he also asked me some questions.

Q. Did they stop with asking questions?

3539 A. I took no instructions from either.

Q. Did they make suggestions?

A. None whatever; I would not have accepted them.

Q. I simply asked you whether they made them?

A. No, none.

Q. Did you give Professor Marks his statements of operating costs and the statements throwing out these accident and damage items that he has in his report?

A. I don't know what he has in his report; I showed him what I had ascertained as the result of my examination. I told him this was subject to Mr. Hall's approval. I do not know what use he made of it.

Q. And Professor Marks had access to your figures as you were making up your report?

A. In that particular instance he had.

Q. Well, he had in any other instance, didn't he; didn't he come over there and complain because you were not getting the matter of figures and information as promptly as he wanted it?

A. He didn't make any complaint.

Q. Are you sure?

A. As far as I recall, I never heard him complain.

Q. Don't you remember of his coming over there after information?

A. He was not complaining.

Q. Don't you remember his coming over there after information?

A. Yes, I do.

Q. Don't you remember of his coming over several times after information?

A. I think he came over twice.

Q. Don't you remember of his being impatient on account of the delay?

A. I don't know that he was impatient on account of any delay.

3540 Q. What was the cause of his impatience?

A. He wanted to see Mr. Hall, I think.

Q. He wanted to see Mr. Hall?

A. Yes.

Q. And Professor Bemis was also taking an interest in the investigation, wasn't he?

A. Naturally.

Q. And how frequently was he over there?

A. Once.

Q. Only once?

A. Yes.

Q. The other times you saw him at the hotel?

A. Yes.

Q. Now, do you remember defendants Exhibit 35, which showed the total book cost of the Capital City plant, plus the Des Moines Company expenditure \$1,994,714.09?

A. Yes, I remember it.

Q. Did you also make that up for Mr. Hall?

A. Yes, sir.

Q. And the facts shown by that exhibit are the facts as they appear on the books?

A. I prepared them from my own statements as taken from the books.

Q. So that the report Exhibit 30 which shows the total cost seventeen hundred and some odd thousand dollars, and Exhibit 35 showing nineteen hundred and some odd thousand dollars are both made up by you from the books?

A. That seventeen hundred thousand dollars is based on the valuation of Mr. Pratt in 1895.

Q. Yes, and leaves out a few items?

A. Yes. This Exhibit 35 was made out by me from statements taken from the books without any introductory figures such as the valuations by Mr. Pratt, but starting off with the balances on the books.

Q. In other words it won't do to say that Exhibit 30 shows the facts shown on the books?

A. It is always understood as based on that valuation.

Q. It is always understood it shows those facts except as they have been modified by you?

A. I have been acting under instructions all the time.

Q. Certainly; I am not questioning your instructions. I am discussing simply your general statement that Exhibit 30 shows things as they appear by the books, that is true?

A. Subject to the acceptance of that appraisal as a starting point.

Q. Then you have to say subject to about \$40,000 bond discount too?

A. Yes.

Q. And then subject to your deducting \$250,000 depreciation?

A. \$164,000.

Q. No, you didn't deduct that, you deducted six cents per thousand feet?

A. I didn't deduct that depreciat-oj.

Q. You did testify this morning that the things shown in Exhibit 30 were as they appeared on the books of the company?

A. I think I testified that the exhibits and schedules on which that report was based was taken from the books.

Q. Now, then, just what is there in this report, Exhibit 30, that shows what the books of the company show without change or modification?

A. On page 22 of the report there is a statement which shows the

present book value of the property \$3,853,975.22; add depreciation written off June 30, 1909, \$264,108.78.

3542 Q. Can't you indicate this without reading it all. How much is there here that is as shown by the books; just indicate it without reading it; that is simply to save time.

A. This figure, \$4,118,084. is stated as the book cost of the Des Moines Company.

Q. Is that figure on the books?

A. No, the first figure is \$3,853,975.22.

Q. What else is there in this report that is as shown by the books of the Company without some modification or change?

A. I think these various schedules show just what the books show.

Q. Take the first one, quantity of gas manufactured and sold and so on, what books will show that, or did you get that from the statement made by the company?

A. The quantity sold and used by the company is shown in the journals.

Q. Did you get this from the books or the statement the Company made up?

A. From the books.

Q. That is shown by the journals of the Company?

A. Yes.

Q. Now then this next statement is made up from the books?

A. Yes, altogether; of course I put in the amounts unaccounted for. Schedule 3 showing the summary of extensions and improvements of works is as taken from the books.

Q. No change in that? Is that right, schedule 3?

A. Yes, schedule 3.

Q. Schedule 4 is not shown by the books?

A. No that is taken from certain statistics furnished to us.

Q. By the company?

A. Well that was from the books or statements handed to us.

3543 Q. And which was it, you said either from the books or statements handed to you, which did you take?

A. The particulars as regards meters were taken from the meter record, the book recording the number of meters in service or use; the feet of mains was taken from statements given to us by the Company; the gas sales were taken from the books.

Q. Does that check with your other gas sales statement balance?

A. Well, these are for the calendar year.

Q. It ought to balance out with this other statement, ought it not?

A. Yes, approximately.

Q. Well, will it exactly?

A. I don't know that it will exactly.

Q. It will if you got both of them from the same source, don't it?

A. It ought to.

Q. The fact is you did not get them both from the same source; you took this from the statement furnished by the Company?

A. No, sir.

Q. Then it will balance out with the other?

A. It ought to.

Q. But will it as a matter of fact; you know if you checked all these things?

A. Yes, sir; I remember just inquiring as to this particular item, in total this figure given for the calendar year checked up with the statement as broken up over the five year period, and I was told by my assistants they did.

Q. You didn't want us to catch you on a thing like that?

Mr. BYERS: You wouldn't want to try to.

Mr. GUERNSEY: I wouldn't regard it as material.

Q. Now, then, your summary of additions to mains, service, meters, etc., did you make that up from the book?

3544 A. Yes.

Q. From the books as they stand?

A. Yes.

Q. And did you make up this list of standard prices, schedule 6?

A. No, it was prepared by my assistants at Mr. Hall's instructions.

Q. Did you have anything to do with it one way or the other?

A. I did not directly.

Q. Then you don't know why they always took the lowest?

A. Yes, Mr. Hall instructed the assistants to take the lowest invoice price.

Q. Not the average?

A. No question of average was made.

Q. Did you take the lowest invoice price—here is a piece of 24 inch pipe, October 1907?

A. Yes, we couldn't find any invoice for 24 inch pipe until away back in 1907.

Q. So you carried three or four years?

A. In stores.

Q. Did you add interest on it?

A. Oh, no.

Q. Somebody had to pay that?

A. We are talking of invoice prices here.

Q. Did you add that interest anywhere to get at any of your costs?

A. No, sir.

Q. Somebody had to pay it didn't he?

A. Well the Company didn't take credit for it in their inventory.

Q. I didn't ask you that.

A. I should think if they thought it was worth the addition of interest—

Q. My question is somebody had to pay it?

3545 A. Yes.

Q. It was a part of that cost wasn't it?

A. This pipe was bought in 1907 and it was not required until 1910; if then they chose to pay interest on it, it is another matter,

Q. Do you know whether they bought then because it was low?

A. Very likely they did.

Q. You have to take into account the carrying charge as well as the low price?

A. Yes.

Q. You just took the low price and eliminated the carrying charge?

A. Yes, that is what is stated there.

Q. What else is there in this report that was taken from the books that is not changed?

A. The balance sheets taken from the books, Exhibit F, with the exception—

Q. No, but things that are not changed; I want things that are not changed; you testified this morning this report showed the books just as they stood?

Mr. BYERS: That is not fair; he did not say that.

Mr. GUERNSEY: I have not attempted to quote him; I will take the record for it.

Q. I wish you would point out things not changed in addition to what you have pointed out?

A. Exhibit C is a statement from the books.

Q. That is not changed in any respect?

A. Some slight adjustment had to be made.

Q. You don't understand my question; I want to know the things in this report, in addition to those you pointed out taken from the books, without change, is there anything?

A. Will you let me explain in regard to Exhibit C?

3546 Q. I prefer to have you answer my question. I am not concerned now with the magnitude of the changes. I mean what is in this report except what you have taken from the books without change?

A. That is all.

Q. You pointed out everything?

A. Yes, sir.

At this time an adjournment was taken until 1:30 p. m.

3547

1:30 p. m. MONDAY, September 18, 1911.

ANDREW SANGSTER being continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Q. Did you bring over with you your memorandum showing the 1910 operating?

A. Yes, I did.

Q. This memorandum that you hand me is not the memorandum as you made it up originally is it. This is the operating expense 1910 this is marked Exhibit "D"?

A. This is the only statement I prepared in connection with these operating expenses.

Q. This is the final statement as it appears in the report Exhibit 30?

A. Yes, sir.

Q. Now then is that the only statement that you prepared as to this operating?

A. Yes, sir.

Q. Didn't you go through the books first and make up your statement of operating and then take it up with Mr. Hall and make your changes before Exhibit "D" was prepared?

A. I had my instructions as to what to include and as to what to exclude before I made up the statement.

Q. Before you made up any statement?

A. Before making up any statement.

Q. These instructions were given you by Mr. Hall after you had taken this statement of Mr. Curten's and looked it over?

A. Yes, sir.

Q. You said you had a reconciliation of these things here. Ordinarily in a report where you make any changes in the books you indicate the changes, what those changes are and reconcile them in the report so that a person who reads it can tell just what has been done?

A. Yes, that is usual.

Q. So you do not say for instance if you are making a report ordinarily you do not say the operating expense with certain corrections are so and so, but you say they are shown on the books so and so and then you say there are certain items which we think perhaps should be added or ought to be taken away and you indicate these items?

A. Yes.

Q. And that makes it clear so that a person to whom the report is made can tell just what you are doing and why you are doing it.

A. Yes, sir.

Q. Now the report itself does not contain this reconciliation does it?

A. I think it mentioned these specific sums in the report, in the body of the report.

Q. I know, but don't give the items?

A. Does not give a succinct reconciliation in that form.

Q. It gives the totals somewhere of the books I think, can you refer me to the report?

A. Page 11, Mr. Hall indicates what eliminations he has made.

Q. I know, but are the amounts stated in there?

— No, the amounts are not stated.

Q. Well will you prepare for us in such shape that I can use it here a copy of this reconciliation?

A. Yes, sir.

Q. So that we may put that in and have a record showing your own reconciliation of these items?

A. Yes, sir.

Q. That will cover the five year period?

A. The whole five year period.

Q. Your attention was called to Valley Junction. The Valley Junction accounts are separated are they not on the books as far as that can be done without resorting to some method of averaging and deducting on that basis?

A. I should say so.

Q. That is in the first place receipts are shown separately, Valley Junction and Des Moines?

A. Yes.

Q. When you come to some of these expenses like say the cost of the gas in the holder it would not be possible would it to separate these matters item by item except upon some basis that was adopted as a fair basis in view of the circumstances?

A. That is so.

Q. And that could be done at any time just as easily and perhaps better later than when the gas was being made couldn't it?

A. Yes.

Q. So that the books are kept properly as far as that matter is concerned are they not?

A. Well with the possible exception of debits to the construction account I don't know, but it would not be possible to just state explicitly what proportions of the additions to plant were in connection with Valley Junction.

Q. I was talking about the operating expense?

A. As regards operating expense I don't say that it could be possible than to do more than what the books show.

Q. Then when it comes to dividing these operating ex-
3550 penses we either have got to take the revenue or feet of gas sold or some other equitable basis for the division.

A. Exactly.

Q. Now then with reference to the construction you don't know yet do you whether the books show that so that it is easily divisible or not?

A. Yes, I know that the books do not show the division between Valley Junction and Des Moines.

Q. The books do show where each extension is made do they not, if there is an extension?

A. No, sir; I don't think so.

Q. You have in this report somewhere here a schedule showing the extensions of *names* haven't you?

A. Five.

Q. Schedule 5. You begin here in 1895 and you have a certain amount. Now don't the record show where that money was spent?

A. That expenditure is analyzed according to the size of the main. That is, the accounts are kept for two inch, three inch, four inch, six inch and so on.

Q. If you go back of that to the authorizations and to the other record you find out just where the work was done do you not?

A. The authorizations may show.

Q. Well do they not show as a matter of fact just where each piece of work was done and the extent of it?

A. I don't know.

Q. You don't know, well then your criticism is——

Mr. BYERS: I have asked him to get that.

Q. Your criticism is directed not to the fact this record is not kept but as to the place where it is kept?

A. Yes, sir.

3551 Q. Your notion is it would make a material difference whether kept in one place or another as long as there was a systematic record kept?

A. No, I don't say so.

Q. You have not gone far enough with your examination yet to be able to tell us whether there was a systematic — kept with reference to these transactions have you?

A. I have not.

Q. So it would not do to say the records were incomplete in that respect yet would it?

A. No, it would not.

Q. Your attention was called to the fact that *that* the special city tax was paid upon the entire earnings, gross earnings of the company, including earnings from Valley Junction, you recall that do you not?

A. Recall the question.

Q. Now did you allow that special tax upon the gross earnings as a proper operating charge?

A. Yes, I did.

Q. Did Mr. Hall allow it as a proper operating charge in his report?

A. I think he did.

Q. You are sure, aren't you?

A. Yes, I am sure.

Q. So that in the judgment of yourself and Mr. Hall it was a proper operating charge?

A. I have never passed any judgment on it. Under Mr. Hall's judgment it must have been a proper charge.

Q. Now you know do you not that the ordinance fixing these rates prescribes two per cent on the gross earnings.

A. Yes.

3552 Q. And it was a strict compliance with that ordinance that made this two per cent payment was it not?

A. Yes.

Q. Doesn't the company keep a record of every meter?

A. Yes.

Q. Shows the date when set?

A. Yes.

Q. Where it is set?

A. I could not say as to that.

Q. Have you examined these meter records?

A. I had an assistant examine it.

Q. Got to go down one step further to find out about that or up one step further, just as you please?

A. Well the purpose of investigation of that——

Q. I am not criticising it, I just want to get at the fact, I understood you to say that there was not anything in the book, on your direct examination here, to show where the meters go.

A. Not on the books of account.

Q. Would you expect that on the books of account?

A. No.

Q. Now is there something in the proper records to show just where each meter is set, when it is set, there and when it is removed and where it goes?

A. Yes.

Q. And have you examined these records so you know whether there is or is not?

A. I think the meter record gives those particulars.

Q. So that if I did understand you as saying that the books did not show where or did not indicate where the meters go that is an error isn't it?

3553 A. If you include the meter record as one of the books of the company.

Q. If I asked you that question you would understand it as referring to the proper books, books in which that information would properly appear wouldn't you?

A. Well on reflection I would.

Q. Just if I should ask you whether there was any original entry for instance about something you would not merely limit your answer to the ledger and say no would you?

A. Not on due consideration.

Q. Now take these tables for 1904 and 1905, what are they?

A. To which do you refer?

A. You testified you prepared something for Prof. Bemis for the years 1904 and 1905, just what kind of tables are they?

A. I prepared a statement of the operating expenses as shown by the books without any adjustment.

Q. Now did you put back into this operating expense this personal injury item that you took out later?

A. No, sir.

Q. So you left us up in the air so far as that item is concerned finally?

A. Without any intention of doing so, but that is the fact.

Q. I don't want to have you infer any criticism of it, I am getting at the situation?

A. That is the situation.

Q. These statements you prepared for these years show exactly as they appear from the books?

A. Exactly.

Q. No modifications or adjustments?

A. None.

3554 Q. Are they statements in detail or simply aggregates?

A. In detail.

Q. I want to get the extent of your conversation with Mr. Curren about this 120,000 item. Can you tell just what that conversation was?

A. I will try to recall it in general terms. When I came across the gap as it were, between the Capital City Gas Light Company accounts and the Des Moines Gas Company accounts I found of

course a considerable increase in the value of the plant stated in each of these books and I asked——

Q. You mean increase in the book value?

A. In the book value, and I asked Mr. Curren if there were any detailed inventory of the properties sold by the Capital City Gas Light Company to the Des Moines Co. He said there was nothing further than what appeared in the minute book, but he indicated that there were certain contracts which did not appear on the books including this holder, some real estate I think and there might be an oil tank, but I am not sure now. That was practically how the matter stood then and I never was able to follow it up in any greater detail.

Q. Is that the entire conversation as accurately as you can state it now?

A. Yes, as I can recall it it is.

Q. You would have to add to it this wouldn't you that Mr. Curren told you that he had given you all the information that he had about it?

A. Yes.

Q. Now did you ever take that up with him again?

A. Yes, I believe I did.

Q. And what occurred this second time?

3555 A. Mr. Curren indicated to me that he thought——

Q. I don't like your saying he indicated to you, can't you tell us about what he said instead of his inferences from it?

A. He intimated that certain specifications would be got showing the cost of the holders and the other items of which I never had any definite information, but up to the time when Mr. Hall prepared his report we never received these specifications.

Q. Now is that the whole story as to the holder?

A. That is the whole story.

Q. And so you took Prof. Marks' estimate of its value?

A. No—I don't know what was in Mr. Hall's mind when he stated the \$120,000 as the price of the holder, all I could infer was that the balance of the bond issue, namely, \$120,000 must have gone for the holder.

Court: The balance of \$120,000, what was the other \$120,000 for?

A. That was paid the United Gas Improvement Company for a debt of \$105,000 and some odd dollars.

Q. What information did you furnish Prof. Marks as to what the books showed about the cost of this property?

A. I didn't furnish him any information.

Q. None whatever?

A. No.

Q. Nothing along that line.

A. He did compare his totals with mine, that was all.

Q. And his totals on what?

A. Additions to plant.

Q. He don't show additions to plant in his report does he?

A. I don't know.

Q. It is total on investment isn't it?

A. Yes.

3556 Q. Now didn't he go a little farther than that, than the mere comparison of the totals of the investment?

A. No.

Q. I don't recall the details of it very well, but my recollection is that Prof. Marks' figures *some* some appreciation on real estate. Did you give him a basis for making these figures?

A. No, sir.

Q. You said that Mr. Curren in connection with the holder spoke of some oil tanks. Did you ever put them in?

A. Into our figures?

Q. Yes.

A. We put nothing but the \$120,000 in.

Q. You said he also spoke of some real estate, you didn't put that in?

A. I say we put nothing in but \$120,000, I don't know what it is for.

Q. Have you ever checked your total real estate investment as shown by this report, that is the real estate that it covers with the real estate that the company now owns?

A. Well all the price I got as to real estate was from the books

Q. (Question read.)

A. I don't know what real estate the company now owns.

Q. You were here this morning weren't you when this plat was being used with Mr. Pease? And when they were referring to the various pieces of real estate that are used in connection with the manufacturing plant?

A. I was here.

Q. Now then I want to know whether you have checked with this plat or with some list of the real estate used in connection with the manufacturing plant the list of real estate that is included in the real estate investment which you take into account?

3557 A. No, sir.

Q. So that you don't know whether you have included all of it or not?

A. I do not.

Q. You said that this report is a complete and accurate abstract of all entries showing investment in the property of the Des Moines Gas Co. That of course is too broad isn't it? All you assume to show is some of the totals with certain variations, that is right isn't it?

A. With the reconciliation shown in the report.

Q. You don't attempt to abstract all entries that relate to these matters in this report do you?

A. I have an analysis of all figures that appear in the report.

Q. You have an analysis of the totals.

A. Yes.

Q. But the report does not purport to show an abstract of all of the entries in the accounts relating to the investment in the property does it?

Mr. BYERS: That is perfectly evident, not a matter of testimony.

Mr. GUERNSEY: The witness testified in answer to your questions on that very subject this morning that it was.

Q. Does this Exhibit 30 contain a complete and accurate transcript of all entries showing investment in the property that is now owned by the Des Moines Gas Co.?

A. No, sir.

Q. Now does it contain a complete and accurate abstract of all entries as to costs of distribution of gas?

A. Subject to this reconciliation that I shall give you it will show all these entries.

Q. It does not show the entries does it, simply shows the totals.

3558 A. The totals, yes.

Q. A big difference between the entries and totals.

A. Well I understood you to mean——

Q. Not to mean what I said, is that right?

A. Yes.

Q. Assuming I meant what I said it is not an accurate abstract of all of these entries, but simply shows the totals?

A. Shows the totals.

Q. With certain changes, that is right isn't it?

A. Yes.

Q. Now you said you found a reference to certain mains where the company received a deposit in advance.

A. Yes.

Q. The balance of these deposits was less than \$2,000?

A. Yes.

Q. And those were cases where in order to induce the making of the extension the property owner had put up some money to be returned as sales of gas paid for the extension?

A. That is as I understand it.

Q. The special privilege that these people had was that they paid to get the mains where the public generally didn't it?

A. That is so.

Q. On page 58 of his report Mr. Marks says the total cost of street mains from the beginning of the first gas company appears to be recorded in these books as \$647,290.35. Is that something for which he asked you and which you gave him?

A. Well I say that he compared his totals with me.

Q. But that don't answer my question, is that something for which he asked you and which you gave him?

A. I don't remember Mr. Guernsey.

3559 Q. Will you say it was not?

A. I could not say one way nor the other.

Q. When you say he compared his totals what do you mean by totals?

A. Results which he arrived at.

Q. You don't mean his final result, that is his fourteen or fifteen hundred thousand dollars do you?

A. Investment in the plant?

Q. Yes.

A. No.

Q. What do you mean then by totals?

A. As regards his total estimate of the investment in mains services and difference branches of the plant.

Q. You mean the various items that go to make up his total?

A. Yes.

Q. On page 59 of his report referring to services he said the total structural cost of services from the company's books appears to be \$257,672.56 from the beginning. Did you give him that too?

A. From the beginning?

Q. I will quote that over again, the total structural cost of services from the company's books appears to be \$257,672.56 from the beginning. Did you give him these figures also or something like that?

A. I don't recall.

Q. Well did you take up with him the matter of the cost of services as shown by the books?

A. I don't recall.

Q. Will you say you didn't?

A. No, I won't say I didn't.

Q. Did you tell him when you gave him these costs that
3560 they did not include any interest during construction or taxes during construction or overhead charges?

A. No.

Q. You knew they didn't include them didn't you?

A. Yes, I know that.

Q. Now taking up the matter of meters I find on page 61 of Mr. Marks' report at the end of meters this statement, the total charged to meters on the books of the Des Moines Gas Company is \$187,755.93, from the beginning. Did you give Prof. Marks that information?

A. I really don't recall what I gave Mr. Marks.

Q. Well don't you remember this that when Prof. Marks was preparing his report here he called on you for information. You remember that much don't you?

A. He didn't come to me for information personally.

Q. Did you have any talk with him personally?

A. No, sir.

Q. None whatever?

A. Mr. Hall and he had an interview I think.

Q. Were you present?

A. No, I was not.

Q. Then of course you don't know anything about that?

A. No, sir.

Q. I wish you would turn to Exhibit 30 and find out what you ascertained to be the investment in real estate?

A. Page 21 states the investment in real estate as \$35,765.26.

Q. Let me call your attention to this at page 77 of Prof. Marks' report, you will note that the structural cost of the land is taken by me from the records found as \$35,765 and the present value of

the land approximated at \$100,000 showing an appreciation, and so forth. Now did you give Prof. Marks that figure \$35,765?

3561 A. I may have, I don't recall.

Q. Would you say you did not?

A. No.

Q. So far as you know did Prof. Marks make any examination of these books himself?

A. No he did not.

Q. Do you know of any source from which he could have obtained this information except from your examination?

A. *Now I do not.*

Q. Unless he had gone to us?

A. That is right.

Q. Now which one of these exhibits shows in dollars the expenditures each year for the various items of repairs?

A. Exhibit "D."

Q. Under what head in Exhibit "D" do the repairs works for the year 1907 appear, where do we get them?

A. Under manufacturing, under the head of manufacturing.

Q. Repairs works?

A. Yes.

Q. They are how much?

A. \$9,699.99.

Q. Now I find that at page 79 of his report, Prof. Marks says the Des Moines Gas Co. presents the following record of repairs covering a period of four years and giving yearly averages which probably are not as accurate as might be derived at a longer period. Des Moines Gas Co., September 24, 1907, repairs works \$9,399.99.

That checks with your figure here doesn't it?

3562 A. Yes.

Q. Did you give Prof. Marks that information?

A. I don't remember.

Q. Will you say you did not?

A. No.

Q. Now then take the next year, what was the repairs works?

A. \$6,835.23.

Q. Prof. Marks gave it for the next year \$6,835.23. Do you know whether you gave him that or not?

A. I really don't recall what I gave him in any respect.

Q. You do know you gave him something?

A. I recall he compared certain figures with mine, but I did not know that he took any figures from my statements.

Q. How *he* could he get this information as to costs as shown by the books except by your investigation?

A. Oh he would get it from *htese* figures certainly, but I may not have given them myself.

Q. He was while he was making up this report or while you were doing this work, he was coming to you for information as to these costs and you were furnishing it to him and these various other matters, that is true isn't it?

A. Yes.

Q. Did you give him your figures on working capital?

A. No, sir.

Q. Must have got that from Mr. Hall?

A. No, he didn't get any figures from Mr. Hall as regards working capital because Mr. Hall's figures were not made up until Mr. Marks left.

Q. What does Mr. Hall say is the working capital?

A. Page 20 \$68,952.91.

3563 Q. And Prof. Marks shows \$68,689. Do you think figuring working capital on two separate methods and making it a matter of computation two men can get as close as that?

Objected to as incompetent, immaterial and wholly unfair, it must be assumed that whatever figures Marks gave I think — so stated in his testimony, with reference to what the books show he got through Mr. Hall or Mr. Sangster.

Q. Do you think that it would be possible for two people working out the working capital on entirely independent methods to get as close together as \$300 or less?

Same objection.

A. Well knowing in the first place that Mr. Hall made up his figures from the balance sheet after Prof. Marks left Des Moines it does not seem to me improbable.

Q. Didn't Mr. Hall make up part of his report here in Des Moines?

A. Yes.

Q. While Prof. Marks was here?

A. Yes.

Q. And wrote part of it in Chicago afterwards. That is the fact isn't it?

A. No, sir.

Q. Wrote it all in Des Moines while Prof. Marks was here?

A. Yes, he did if you put it that way.

Q. And they were in conference while the report was being written weren't they?

A. I was not aware of the fact if they were.

Q. You were not?

A. No, sir.

3564 Q. Now on page 83 of Prof. Marks' report there is given the cost Per M in cubic feet for manufacturing and distributing gas January 1, 1906 to December 31, 1910. Those costs were furnished by you were they not.

A. Yes, sir.

Q. And do you remember talking to Prof. Marks about that?

A. Yes, I recall giving him those figures.

Q. You also gave him the figures that are contained on page 84 of his report showing the deductions from the operating expenses amounting to \$16,746.88 for the five years' period didn't you? Will

you look at your reconciliation sheet and see if that is the gross amount of your deductions before the additions, 16,746.88?

A. Yes.

Q. Now then he got that information from you?

A. Yes, he did.

Q. And this interest on bank balance \$1,508.54 does that check.

A. That is right.

Q. He got these figures from you?

A. Yes.

Q. Now you had a good many conferences with him after all didn't you?

A. No, sir I have not.

Q. Did he ask for all these things at once?

A. I clearly recall when I gave him these figures as regards cost.

Q. Did you tell him that this accident occurred in 1893 on account of interest on the floating debt?

A. I could not have said 1893 because I knew it was not.

Q. That was an error, it was 1903?

A. 1903.

Q. Did you give him this item \$7,126.53 as a deduction on account of interest on the floating debt?

3565 A. Yes, sir.

Q. Now as a matter of fact as you went along you turned over to Prof. Marks what your examination of the books disclosed didn't you? I don't mean every detail but the substance of it.

A. No, sir; I gave him these figures that was all I gave him.

Q. Somebody gave him other figures, that is somebody gave him these costs?

A. I am referring to the costs.

Q. I mean the costs of the property, not the operating costs, investment perhaps I should have said, somebody gave him these figures as well, take the real estate figure for instance, that checks with yours within twenty six cents?

A. Yes, sir.

Q. Take mains, services, meters and manufacturing plant as you got it you gave him the information on all of these things didn't you?

A. I say we compared totals, that is all.

Q. Did you reconcile them?

A. No, sir.

Q. Did you give him the figures on the sales which are set out on page 85 of the report December 31, 1905, to December 31, 1910, including the sales and the collections?

A. Yes, I think I did.

Q. Clear back on page 36, referring to relief holder No. 18. Prof. Marks says the books of the Des Moines Gas Co., it appears they have a charge of \$33,356 to this holder. You gave him that information didn't you?

A. No. 2?

Q. No. 18.

A. Which holder is that?

Q. 175,000 cubic feet capacity.

3566 A. I don't know, I don't recognize it from its capacity.

Q. Do you find cost of a holder there \$33,356?

A. Yes, sir.

Q. You gave that to Prof. Marks?

A. I think I gave him details of this appraisal of January 1, 1895.

Q. Is that a holder that was purchased before January 1, 1895?

A. Yes.

Q. Did you go into the books to find out what it cost?

A. I took the book figure at that date.

Q. Read the answer to the witness and see if that is what he means?

A. January 1, 1895.

Q. From what did you get that figure as to that holder on that date, what book was it, some entry of that date as to the cost of that holder?

A. If I remember right the tank and holder are stated separately, but the total amounts to this figure here.

Q. On the books?

A. On the books.

Q. How did they happen to enter that *us* on that date on the books it was not nearly all the holder was it?

A. That was the balance standing at the debit of the account to the holder.

Q. It was not an appraisement of the holder as of that date?

A. Mr. Pratt stated the same figure in his appraisal.

Q. They agreed?

A. Yes.

Q. Now then take the next holder, Mr. Marks' report on page 37 says the books of the Des Moines Gas Company appear to have charged \$40,057 to this holder. You find one of the same
3567 amount?

A. I find here tank and holder No. 3 \$40,057.

Q. Did you give him this information, give Prof. Marks this information?

A. I say I think I gave him the details of that appraisal.

Q. Is this what you mean by simply comparing totals?

A. Totals as at December 31, 1910.

Q. You did a little more than that didn't you?

A. Yes, now that you bring it to my mind, I remember giving him the details of this appraisal.

Q. You gave him details of the costs as far as you got them didn't you?

A. Cost as shown by the totals.

Q. Will you say it was limited to totals now?

A. I gave him these totals and details of this appraisal.

Q. Do you remember anything more you gave him?

A. The cost per thousand cubic feet of manufacturing gas for the last five years.

Q. Can you remember everything that you gave him?

A. No, sir.

Redirect examination by Hon. H. W. BYERS:

Q. I suppose it would be fair to say that whatever Mr. Marks says in his report that the books of the company show that information he got either from you or Mr. Hall or some of these other young men that were examining the books?

A. Yes, I should say so.

Q. Of course the purpose of this cross-examination is to indicate that Mr. Marks got his appraisal from the figures that you got 3568 from the books. You say you compared totals, what do you have to say as to whether Mr. Marks made up his valuation from your information or Mr. Hall's as to the valuation of this physical property?

A. Well that is what I mean when his appraisal was prepared he compared the total of the appraisal with figures which we had arrived at.

Q. After he had worked out his valuation of the plant?

A. Exactly.

Q. First he figured it, then he compared the total valuation as he found it with this book investment as you found it.

A. Yes.

Q. That is what you mean by compared totals.

A. That is what I mean.

Q. It is not true is — that Mr. Marks in any respect made up his figures as to valuation of this plant from figures you furnished for any such purpose?

Mr. GUERNSEY: I think counsel has forgotten about leading questions again?

A. No, sir; it is not.

Q. You were asked to state whether or not you know that the real estate as it appears on the books checks with the real estate the company now owns. Did the company furnish you any information about any other real estate except what appeared on the books?

A. None whatever.

Q. So you have no means of knowing, so far as you now know as to what real estate they owned, except what appeared on the books?

A. Nothing but what appeared on the books.

Q. Now the Valley Junction matter, you were mistaken in the statement which you made which as I remember it was that 3569 there would be no way that the books could show the cost of extensions and improvements at Valley Junction. It would not be difficult at all would it to keep an account with Valley Junction showing the money expended there in extensions and improvements and additions?

A. I don't think it would.

Q. There is no such account?

A. No, sir.

Q. Now as I understand the Valley Junction end of this concern the only thing that the books do show in the way of separate and independent accounts is the gas sold, total of gas sold and the revenue?

A. Yes, sir.

Q. And if I understand your testimony in order to ascertain so that the Master in the final decision, if he wanted to use it, the credits that are on the books of the company, what was involved in construction and improvements and additions at Valley Junction, it would be necessary to trace or take these authorizations that come from Philadelphia.

A. Yes.

Q. Then you might not be able to do it unless the authorization itself showed exactly where the improvement was to be made and the cost of it separate from the cost of any improvement in Des Moines?

A. Yes, it would be necessary to go to the authorization or some document.

Q. Now it would be no trouble at all would it to show on the books exactly what money was expended in Valley Junction for improvements and extensions and additions and then to charge a per cent of the expenses like general expenses and office expenses 3570 and operation at Valley Junction and get at a reasonable statement, comparative statement as to the value of the Valley Junction plant and the Des Moines plant.

A. With some little extra trouble they could ascertain that information.

Q. In one answer you said you had your instructions as to what should be included. What did you mean by that?

A. Included in what?

Q. In your statement or in this report you made, the memoranda that I have made here is I had my instructions as to what should be included.

A. I think you refer to operating expenses. Mr. Hall made a survey of the profit and loss account as submitted to us when we first started out in the investigation. He ran over the items and he said—he told me which to—

Q. That is he explained to you which in his judgment were proper charges and proper expenses and which were not?

A. Yes, sir.

Q. Now what other or different items, if any, did these instructions refer to than the ones Mr. Hall has already fully explained here to the Master?

A. None whatever.

Q. Now Mr. Guernsey had you say, he put this sort of a question to you, well then why didn't you use the United Gas Improvement Company's account in the report. It is in the report isn't it?

A. It is included along with the other items, the general account.

Q. It is in the same way that all the other items are.

A. Same as any other account.

3571 Q. The \$105,000, there seems to be a little confusion yet about that \$105,000 and the \$120,000 allowed for the holder. If I understand the \$105,000 item it was the balance due as shown by the books of the Capital City Gas Light Company from that Company to the U. G. I. on a running account?

A. Upon running account. On an open account and on bills payable.

Q. And much the same kind of an open account as has been carried with the U. G. I. by the Des Moines Gas Company since 1906?

A. Yes.

Q. And that \$105,000 balance was if I understand you, if I don't correct me, was paid off or canceled rather with \$120,000 of that \$285,000 issue of bonds.

A. That is quite correct.

Q. And it is the other \$120,000 after taking out the \$45,000 for Valley Junction that you stated to the Master this morning was inferred by you and Mr. Hall to represent the cost of this holder?

A. Yes.

Q. Mr. Guernsey had you say that Mr. Hall's report shows conclusions only. That is not exactly so is it?

A. Conclusions based upon these statements and exhibits as appended to the report.

Q. And it reports and summarizes these—the report generally report—correct summaries of the book entries with reference to the different things covered and treated by the report?

A. Yes.

Recross-examination by N. T. GUERNSEY, Esq.:

Q. That is not just right is it?

3572 Mr. BYERS: Well I think we all understand what he is trying to get at.

A. I understood by treated in the report as shown in the treatment in the report.

Q. That don't make it very lucid to me. You don't mean to modify the statement you have made so many times that this report is based on these books entries with certain modifications do you?

A. I think that is quite well understood.

Q. This \$105,000 that was about \$48,000 of it bills payable, \$48,700?

A. I can't recall the exact amount.

Q. Something like that?

A. Yes; something about that.

Q. Balance for accounts payable?

A. Yes.

Q. For material and supplies and things like that?

A. Yes, and interest I think, credits for interest on their account.

Q. Yes, there was a little interest there, \$487.00 as I recall it.

A. Something like that.

Q. Were you in conference with Mr. Marks when he was preparing his report?

A. No, sir.

Q. Did you ever see his report?

A. I didn't see it until Mr. Hall I think it was was looking over it.

Q. As it was being prepared?

A. No, sir.

Q. Afterwards?

A. Yes.

3573 Q. Then you can't tell what use Mr. Marks made of these figures can you?

A. I never said that I knew.

Q. Didn't you, you said what he didn't do with these valuations a few moments ago when General Byers asked you whether he did this that and the other with these valuations, you said no, no, didn't you say what Marks did, as to the use which Marks made of these valuations in making up his report, you remember being asked about that a few moments ago don't you?

A. I don't see he could make any use of our figures.

Q. Don't you remember being asked about that a few moments ago?

A. Yes.

Q. As a matter of fact, you don't know just what Prof. Marks did do?

A. No, I don't.

Q. You haven't any information about it whatever have you?

A. No, sir.

Q. Referring to these questions asked you on redirect examination that have just been read to you about the use that Prof. Marks made of the figures furnished to him by you, you have no information whatever as to what use he made of these figures have you?

A. Well all I can say is that I inferred from the fact that his appraisal was apparently prepared, that he was comparing his totals with ours as a matter of interest?

Q. That don't answer my question. You have no knowledge whatever have you as to the use which Prof. Marks made of the figures furnished to him?

A. Of course not.

Q. You didn't have any when you answered a few moments ago that he didn't use them.

3574 A. Well I meant to infer just what I replied in my last answer.

Q. Now then you said that a separate account could be kept on the books as to Valley Junction extension. That would not help us any way would it if we were looking to the actual value of the plant instead of the mere book value?

A. I don't suppose it would.

Q. It would only be material when you came to questions of book value and things of that kind?

A. Yes.

Witness excused.

3575 JANSSEN HAINES being recalled on the part of the defendants and examined in chief by Hon. H. W. Byers, testified as follows:

Q. I find in defendant's exhibit 27 on page 120 the following record: "Agreement with real estate operators. Authorized contract with certain local real estate operators for laying street mains and services in connection with development of property. Estimated cost \$5,000 of which parties benefited are to advance \$2,500 same to be refunded as consumers are obtained, form of contract approved by counsel." Just what does that record refer to?

A. You will have to let me see the record General.

Court: What year was that?

A. That was February 19, 1908. I don't recall what this was from this record, I think I can find it for you.

Q. Do you know who the real estate dealers were, what firm it was.

A. Well I don't recall we have made that form of contract with a number of real estate men different times, but I can find out for you and let you know. ~~We have copies of these contracts in our office.~~

Q. I wish you would find out the names of the several real estate dealers as shown in the contracts you have and the amount which was involved in each of the contracts if you will?

A. All right, be glad to do that. I will bring in the contracts.

Q. In your books for 1907 I find the following credits, expenses charged by U. G. I. company \$2,365.13. Do you know what expense that covers?

A. Let me see what you have got, I don't remember.

3576 Q. This is not the book itself, just a memorandum.

A. What is the date of it?

Q. January 1907.

A. Where did you get it from, give me some clue where I can locate it on the books. That is very vague.

Q. The next item is repairs, stores and authorizations \$7,527.04. What does that refer to?

A. I can't tell from that record until you tell where I can get that and I will get the books and show it to you.

Q. Interest \$453.30. Do you know what that interest was figured on?

A. I certainly can't tell you that. You can read me a list of figures off if you want to, but I can't guess what they are. You will — to give me some place where I can locate them on the books.

Q. These items are totaled and then there is an item of \$44,000 cash and the deduction of the charge \$9,141.14 leaving \$44,635.47 as due the U. G. I., and that was closed by note was it?

A. I don't keep these books in my head, if you will show me the books I will be glad to show anything I know about it.

Q. What I want to get at is the practice more than the particular item. You carry an account right along with the U. G. I.

A. An open account?

Q. Yes.

A. Yes, material, supplies, and various things, money advanced.

Q. That account is kept is it not or rather the entries are made here from directors or instructions from the Philadelphia end?

A. The entries here are made from bills furnished or bills rendered to us just the same as if we purchased material from
3577 any other concern?

A. The bills naturally come from the U. G. I. office because that is where they originate.

Q. When there is a balance due at the end of the year, that is if you want cash, if you want to use money the U. G. I. furnishes the money and then you prepare and execute or have executed a note covering the balance of the account together with the cash, close the account that way don't you?

A. The way it has been done, if I need money for extension and improvements as I frequently do, I make a draft on the U. G. I. for five, ten, fifteen, 25 or \$30,000, whatever is necessary and the officers of the company execute a note of this company in favor of the U. G. I. company.

Q. At what interest?

A. At six per cent.

Q. In that note is included whatever balance there is to their credit in this open account?

A. I should have to go to the books to tell you that?

Q. Don't you know your practice is to pay the U. G. I. interest on all balances as well as interest on notes?

A. On open accounts over thirty days or over sixty days, just the same as we would any other firm.

Q. It is figured at six per cent isn't it?

A. Yes, the same as the bank rate, the same as -he bank would loan it to us at.

Q. Commercial paper in this town for the last two years has been carried as low as three and a half?

A. I never put out any commercial paper for this company on the street.

Q. I am not talking about the street.

3578 A. That is what commercial paper is, is commercial paper put on the street.

Q. What difference does it make where you get the money so you get the lowest rate, whether you get it on the street or whether you get it in the bank?

A. It makes just this difference, that the commercial paper put on the street is paper which is absolutely met at the time it becomes due and must be met. The ban- will carry an open account where payments can be made on the account at their regular banking rate.

Q. That is what you did then as you call it, you dealt with the U. G. I. the same as you would a banker and paid the same rate of interest.

A. Yes, we could defer our payments, we did not have to make payments when it became due, continue to pay interest on them but if commercial paper you would have to take up the paper.

Q. Let's just take this account here of the U. G. I. for the year 1907 as it appears on the books for the year ending February 28,

1907, there is charged to manufacturing \$16.08. Now what did that represent?

A. Well I would have to look at the books. I could not tell from that statement.

Q. I am reading this from the books.

A. Yes, but I would have to go back of the books.

Q. Distribution \$16.08, you might not be able to tell what that is. The next item is organization expense \$993.52. What is that item?

A. That is all spread in the books, I can't tell you just from that statement.

Q. What do you think it is here?

Objected to as immaterial.

3579 Q. The next is office expense \$882.72. What is that item?

A. The same as the other items, I can't tell you in detail what the items are you are reading from the paper.

Q. Don't you know what would be included in such a charge as that or credit on your books?

A. I could not carry these accounts in my head, we have some seven or eight thousand accounts in our books for the last four or five years and how on earth could I carry these accounts in my head.

Q. You don't have several thousand accounts with the U. G. I.?

A. No.

Q. Can't you tell what the U. G. I. was likely to be credited \$882.72 for, for office expenses?

A. I am not going to guess on that when the books show the fact.

Q. Next is general expense \$151.62, have any idea what that is?

A. Have the same answer to that.

Q. Works expense, \$182.85. Any idea what that is?

A. You will have to go back to the books.

Q. When would know about this if you don't, you could not tell any more about it from the books than you can me reading what is on the books?

A. Certain books will show the details.

Q. Where in the books will it show what this office expense of \$882.72 was, where will we find that on your books just as I have read it to you?

A. I don't know where you got that statement, tell me where you got the statement from or let me see the statement and see the books and probably find out.

Q. It runs through the whole date of your company. Take the statement and check it up with the books and tell me tomorrow if you can't do it today.

3580 COURT: You don't keep the books yourself do you?

A. No, sir.

Q. Do you pay interest on accounts like this to the U. G. I.?

A. We pay interest on our notes which we give the U. G. I., and we would on balances I suppose over sixty days, but as a matter of fact when we have the money we pay the balances.

Q. But if you don't have the money you pay interest, credit up interest to the account?

A. Certainly if we can't pay the account we have to pay interest on it.

Q. Interest is always figured at six per cent?

A. Yes, sir.

Q. Can you give for me the extensions and additions that have been made to the Valley Junction plant since March 1906 without too much trouble?

A. I won't accept your second qualification, it will be a great deal of trouble to get them, but I can have them gotten for you.

Q. I wish you would have some of the boys up there do it for me in the next day or two if you will. You have found Exhibit 18 have you?

A. Yes, I will bring it in in the morning.

Q. Who was your immediate predecessor in the management of the Des Moines Gas Co.?

A. E. G. Pratt.

Q. We call him Col. Pratt?

A. Col. Pratt.

Q. Do you remember when you were on the witness stand a good while ago at the beginning of this investigation or trial I asked you if there was any change in your salary because of the change
3581 in your title?

A. I don't recall the question, but you may have asked me that.

Q. Well there was a change in the salary wasn't there?

A. There was a change in the salary on the first of this year. Do you mean that? Change in the salary when?

Q. This summer, not the first of the year?

A. No, sir.

Q. When was the change?

A. January 1, 1911.

Q. Was it made then or made in July of this year to be entered as of date January 1?

A. I think that the minute book will show that it was made in January or February to date back a few weeks.

Q. Did you get that increase?

A. Certainly.

Q. That is not like the salary then of the Philadelphia gentlemen?

A. I don't know about the salary of the Philadelphia officers of the company. I get my salary and spent it.

Q. You know as a matter of fact that Douthirt's salary and Pearson's and Bodine's goes to the U. G. I., not to these individuals, do you know that?

A. Yes, I know it.

Q. That is not true as to any part of yours?

A. No, sir.

Q. You were to get me the contract, furnish me the contract with Brereton for the construction of one of these brick buildings down

here, will you have a note made of that so it will be brought in in the morning.

A. Yes.

3582 Q. In this defendant's Exhibit 27, Des Moines Gas Company No. 1 stockholders and directors meetings on page 233 is recorded the following: "Expenditures made for additions to, extensions or betterments of plants of the Des Moines Gas Company or for acquiring other plants or property real or personal from March 1, 1906, to December 31, 1910, real estate \$1,649.26, extensions and improvements at works \$85,760.39, street lamp extensions, \$2,039.65, extension of street mains \$242,686.12, meters \$68,364.93; services \$72,493.28; total \$472,993.63." Is that a correct record?

A. You are reading from the book?

Q. Yes.

A. Yes, sir.

Q. Now what real estate is that that is referred to there for which an expenditure of \$1,649.26 was made?

A. I don't know, I will have to look it up on the books.

Q. Will you make a note of that and look it up for me?

A. Glad to, yes.

Q. Extensions and improvements at works \$85,760.39, does that include improvements, extensions and improvements both here and in Valley Junction?

A. It would if there had been any made, but as a matter of fact I don't think there has been any made since that time.

Q. This is right up to January of this year?

A. I don't think any has been made since the first of March 1906 to works account at Valley Junction.

Q. What sort of works have you got over there?

A. We have a governor station there.

Q. So it would not be so very far wrong to mention works even at Valley Junction, of course I suppose that the works since the combination of the two plants practically all are at Des Moines.

3583 There are no street lamp extensions in Valley Junction?

A. No.

Q. So that would all be here. Now there have been extensions of the street mains over there since 1906?

A. Yes.

Q. In fact about all the mains you have over there were laid since March 1906?

A. No sir; I think nearly all laid prior to that. A few extensions since then.

Q. What have been are in this item?

A. I presume they are.

Q. Meters \$68,364.93, that includes meters both here and Valley Junction?

A. Yes, that would include meters both here and Valley Junction.

Q. Would the same be true as to services?

A. Yes.

Q. I don't know whether it has ever went in the record and I want to make you our witness for that purpose, just what arrange-

ment you have for supplying Valley Junction—I wish you would tell us just how you reach Valley Junction with gas or mains and services?

A. We supply Valley Junction from our Des Moines distribution system on the end of it.

Q. So that whatever of the main that serves Valley Junction beginning at the dividing line between the Junction and Des Moines and the works is included in the distribution system of the city of Des Moines?

A. Yes.

Q. Do you have anything in the way of an additional aid to the services in the way of what might be termed Boosters and
3584 and high pressure mains, pushers, maybe that is a better word?

A. We have a high pressure distribution system in Des Moines and the connection to Valley Junction is made off that high pressure system.

Q. And where is that connection made?

A. Right at the line of Valley Junction.

Q. I understood Mr. Maul to say that the main served Valley Junction only served about a half dozen or dozen persons out in the west end of town and I wondered if that was correct?

A. That is not correct in quantity. The same man that serves Valley Junction serves 51st street and serves my recollection is, about 70 or 75 customers along the line.

Q. West of 51st street?

A. Some west and some east of 51st.

Q. How far east?

COURT: 63d street is the line?

A. Sixty third street would be, I think it is. It is called First street in Valley Junction. We supply high pressure service as far back as 44th street and one or two services this side of it, but I don't remember exactly where they are.

Q. When was the high pressure service put in?

A. The high pressure service was put in about the same time the Valley Junction system was put in.

Q. Was put in on account of the Valley Junction system?

A. Yes, put in because our supply was not adequate at that time to supply Valley Junction without high pressure.

Q. I don't know what pusher means in connection with gas, it was suggested I used a wrong term when I said booster. What are pushers?

A. Pushers are simply gas pumps at the works which are
3585 used to maintain a higher pressure on this line because of the fact that it supplies over the hill between what would be 46th street and 56th street.

Q. Forty-sixth street would be along about——

A. About Park Boulevard.

Q. About the Park there, Greenwood park?

A. Greenwood park.

Q. Greenwood Park is higher than it is this side?

A. Greenwood Park is right where Ingersoll Park is on west Grand Avenue between 45th street and about 47th or 48th street the south side of Grand Avenue.

Court: Valley Junction is north of the Coon river?

A. Yes, north of the Coon river and lies directly west of Greenwood Park, the west line of Greenwood Park I think is about 47th and Valley Junction's east line would be 63d.

Q. These pushers are pumps you use in forcing gas on beyond 36th street and to Valley Junction?

A. Yes.

Q. And those are located down here at the works?

A. We run those about twenty minutes or half an hour a day, something like that.

Q. Something has been said about a special deposit and I want to see if I have the right understanding about that. That seems where a residence is beyond the end of a main and the settlement not sufficiently dense to justify the company in putting in mains, you make some arrangement with the consumer by which he deposits the costs of the main and then later on as the business develops and other people settle in the money is returned, is that the idea?

A. That is the general idea. We have a standard form of contract with the consumer by which we will lay the main and he will pay us for the wages and material used and we will refund the money which he advances to us pro rated on the length of the main on a basis of one consumer for every ninety feet.

If he wants us to run 180 feet as soon as we have two consumers on that main, on that 180 feet we refund him the whole amount of money.

Q. So he finally does get it all back?

A. He gets his money back. It is done simply at the request of some of the real estate operators who want to develop their property.

Q. Do you know who took over the last issue of bonds of the Des Moines Gas Company?

A. I do not, no sir.

Q. Do you know who holds them now?

A. I have not the faintest idea.

Q. That sale was not made from this office?

A. No, sir.

Q. Made at Philadelphia?

A. Made by the treasurer.

Q. Mr. Lilley is treasurer?

A. Yes.

Q. Both companies?

A. He is treasurer for the United Gas Improvement Company and also for the Des Moines Gas Company.

Q. Was he treasurer when you first came here?

A. Yes, I believe he was.

Q. Mr. Walton Clark was Vice president of this company.

A. The minute book will show. I don't recall what changes there have been since I came here in the officers.

3587 Q. Under date of March 1, 1906, the records show the election of the following officers: President Samuel T. Bodine; 1st vice president Randall Morgan; second vice president Walton Clark; Treasurer, Lewis Lilley; assistant treasurer, W. B. Keffer. Secretary, W. A. McEwen; assistant secretary, W. B. Keffer. Mr. Lilley and Mr. Clark still retain the same relation to the company do they?

A. Yes, Mr. Lilley is treasurer and Mr. Clark vice president.

Q. Second vice president it is stated here. Do you know what Mr. Clark's official relation is to the U. G. I.?

A. He is third vice president and general superintendent.

Q. Was Mr. Clark vice president or second vice president of the company when you first came out here?

A. No, I think Mr. Albert B. Cummins was, Governor Cummins first vice president.

Q. I find from the records Mr. Clark was not an officer at that time, that is all I wanted to know. Now you don't know then I take it who made any of the purchases of bonds of the Des Moines Gas Company?

A. No, sir.

Q. Nor who holds them now?

A. No, sir; I do not. I have no way of getting that information.

Mr. BYERS: The defendant at this time offers from defendant's Exhibit 27, the record found on page- 233 and 234 under the head of betterment statement to December 31, 1910, and certification of \$60,000 in bonds which reads as follows: The president submitted a statement prepared by the treasurer showing that the company had expended in making additions to or extensions or betterments of its plants or for acquiring other plants or property real or personal March 1, 1906, to December 31, 1910 the sum of

3588 \$472,993.63 and showing the various items comprising this sum which statement was read and ordered spread upon the minutes and is as follows: Expenditures made for additions to extensions or betterments of plants of the Des Moines Gas Company or for acquiring other plants or property real or personal from March 1, 1906 to December 31, 1910, real estate \$1,649.26 extensions and improvement at works \$85,760.39, street lamp extensions \$2,039.65, extension of street mains, \$242,680.12, meters \$68,364.92, services \$72,493.28; total \$472,993.63, less amount of bonds heretofore issued on account of same \$412,000. Balance of amount for which bonds may be issued at par \$60,993.62. Certification of \$60,000 bonds. The president thereupon stated that it was proper to request the trustee under the company's first mortgage dated March 1, 1906, to certify and deliver bonds equal to the amount of the above balance of \$60,993.63. The following was then unanimously adopted, whereas, this company has expended from March 1, 1906, to December 31, 1910, the sum of \$472,993.63 for additions to, or extensions or betterments of its plants or to

acquire other plants or property real or personal and whereas, the Commercial Trust Company's trustee, under this company's first mortgage dated March 1, 1906, has heretofore certified and delivered on account of the above expenditures bonds of the par value of \$412,000 leaving a balance of \$60,993.63 to which amount the trustee may now properly be requested to certify and deliver additional bonds. Therefore, resolved that the trustee be, and it is hereby requested to certify \$60,000 at par of bonds (leaving a balance of \$993.63 on account of which certification and delivery of bonds may hereafter be requested) and to deliver the same to or upon the order in writing of the president of the company to be used by the company only for the purposes of making additions to or extensions or betterments of its plants or acquiring other plants or property real or personal as above set forth. Resolved further that the secretary be directed to deliver to the trustee a certified copy of this preamble and resolution. The board then adjourned. W. F. Louthirt, Secretary. Entered and compared by S. L. E. and W. H. R.

Q. Is Day street in Des Moines or is that in Valley Junction?

A. I don't recall offhand.

Q. Hartford street, does that run to Valley Junction?

A. Get the map. I find Hartford Avenue on the Valley Junction map on the Des Moines side of the line between Valley Junction and Des Moines.

Q. I take it then it runs on through Valley Junction?

A. It is called Maple street on the Valley Junction side of the line.

COURT: The line is the center of the street?

A. Cuts across the line. Maple street on the west side of the line and Hartford Avenue on the Des Moines side.

Q. Day street, where is it?

A. Day street is a little street between Laurel and School streets and between Thirteen- and Fourteenth streets in west Des Moines.

Q. I have found a record here. It was in July that you were elected president was it not?

A. Yes, sir.

Q. I find this record here contained in defendant's exhibit No. 28 under date of July 10, 1911. The resignation of Mr. Samuel Bodine as president was presented. On motion duly made and seconded Mr. Bodine's resignation was accepted. Election of Mr. Jansen Haines as president. Mr. Jansen Haines was nominated for president to fill the vacancy caused by the resignation of Mr. Bodine. No other nominations were made. The ballot having been taken the chairman declared Mr. Jansen Haines duly elected president in place of Mr. Samuel T. Bodine resigned. Resignation of Mr. Randall Morgan as first vice president. The resignation of Mr. Randall Morgan as first vice president was presented. On motion duly made and seconded Mr. Morgan's resignation was excepted. Election of Mr. Samuel T. Bodine as first vice president. Mr. Samuel T. Bodine was nominated as first vice president to fill vacancy caused by the resignation of Mr. Morgan. No

other nominations were made. The ballot having been taken the chairman declared Mr. Samuel T. Bodine elected as vice president in the place of Mr. Randall Morgan resigned. And then this entry marked in red ink with an arrow, says insert this record, salary of Mr. Jansen Haines president. On motion the salary of the president was fixed at \$833.33 per month from this date. That is July 1910. That is a correct record isn't it?

A. It may be a correct record, but my salary was increased on the first of the year.

Q. To how much on the first of the year?

A. To the \$833.33.

Q. Your salary was raised just a short time before was it not, before the first of January?

A. Before the first of January, no sir.

Q. What was your salary for the year 1910?

A. \$7500 as shown on the record there.

Q. When did that salary begin?

A. January 1, 1910.

Q. And then this change from \$7500 to \$10,000, when was it made?

A. January 1, 1911.

3591 Q. So that this entry was not a change in any sense, but it simply made that salary apply to the president?

A. Yes.

Q. To which you had just been elected so you were correct the other day when you said there was no change in your salary after the election?

A. Yes.

Q. And your term as president began shortly after this July meeting?

A. Began on July 10, I believe the date was.

Mr. BYERS: That is all if you will bring me in that estimate and take this exhibit I will furnish you and be able to state or have somebody else do it about this account of the U. G. I. that I refer to. I want also a description of the real estate covered by this item \$1,649.26 and the extensions and improvements made in Valley Junction.

Cross-examination by Hon. GEORGE H. CARR:

Q. Will you explain or state rather whether the pressure in gas in mains, whether the resistance I should say, whether the resistance of gas in mains is greater up hill or down hill at the works?

A. The pressure will increase with the elevation.

Q. That is to say as gas leaves the works if the main goes up hill does it require more to overcome resistance of the gas than it would if the main went down hill?

A. Requires less to overcome resistance of the main if it rises leaving the works.

Q. Assume that the point of manufacture is on the same level as

3592 the point of consumption, but that between those points there is an elevation. Now I ask you whether it is necessary to have pushers to carry the gas to the highest point midway between the point of origin and consumption or whether the pushers are required to carry it down the hill on the other side?

A. You refer particularly to this?

Q. This Valley Junction line?

A. Pushers are really required to push the gas over the hill to the west limits of the city and the people in the west limits of the city had been kicking for some time for gas and we could not afford to supply these people at the same time unless we had additional consumption of Valley Junction and the whole system required the construction of these pushers and the high pressure system. Otherwise it would have meant a very large increase in the investment in mains which would not be warranted by consumption.

COURT: When you say you have a governor there what is that?

A. It simply maintains a constant pressure on the outlet, no matter what the pressure is on the inlet so we can overcome the frictional resistance of the main to that point by a high pressure on the gas and then when it reaches that point the governor automatically reduces the pressure if it is too high to the proper pressure at which it should be distributed. It performs the same function that a governor on an engine or transformer on an electric current.

COURT: Changes the pressure in there to suit the distribution system of Valley Junction. That is on the Valley Junction side.

Q. I call your attention to page 233 of the minute book which was read into the record and particularly to the recital near the bottom of the page as follows, the president thereupon stated that 3593 it was proper to request the trustee under the company's first mortgage dated March 1, 1906, to certify and deliver bonds equal to the amount of the above balance or \$60,993.63, and I ask you whether you know what is referred to there as the company's first mortgage dated March 1, 1906?

A. It is the first mortgage authorized the first meeting of the directors as shown on page 19 of the minute book.

Q. Now will you refer to article 1 of that mortgage as found on page 26 of the minute book and read into the record article 1, showing the authorization referred to in the minutes that was read in the evidence.

Complainant offers and reads in evidence article one of the first mortgage bond beginning on page 26 and found on page 27 and page 28 of the record as follows:

A. ARTICLE 1. The issue of bonds to be secured by this mortgage is fifteen hundred (1500) bonds, of the par value of One thousand dollars (\$1000) each aggregating One million five hundred thousand dollars (\$1,500,000) at par, dated March 1, 1906, payable March 1, 1926, and numbered consecutively from one (1) to fifteen hundred (1500) both inclusive. Upon the recording of this mortgage all of the bonds hereby secured shall be executed by the gas company and delivered to the trustee

(1) Two hundred eighty five thousand dollars (\$285,000) at par, of said bond- shall be issued at once certified by the trustee and be delivered to or upon the order of the president or vice president of the gas company.

(2) Four hundred thousand dollars (\$400,000) at par of said bonds shall be retained by the trustee and shall not be certified until required to purchase or pay for, take up, exchange or replace bonds outstanding of the Capital City Gas light company due January 1, 1907.

3594 It is hereby agreed that the foregoing Four hundred thousand dollars (\$400,000) at par of underlying bonds shall be taken up at their maturity and that their time of payment shall not be extended. Upon the maturity of said underlying bonds the trustee (in the event that said underlying bonds are not exchanged for bonds hereby secured and reserved) shall sell Four hundred thousand dollars (\$400,000) par value of the bonds hereby secured and reserved at public or private sale as an- when requested by the gas company and out of the proceeds of such sale shall pay off and discharge so far as same are sufficient the said underlying bonds and pay the balance over to the gas company; and if the proceeds of such bonds shall not be sufficient to pay in full said underlying bonds the gas company shall pay to said trustee in cash the amount of any such deficiency for application by said trustee to the payment of said underlying bonds. All the said underlying bonds constituting the above mentioned issue when received in exchange as -foresaid or when paid shall be surrendered to and canceled by the trustee it shall, if practicable cause the mortgage securing same to be satisfied and discharged of record.

(3) The balance being Eight hundred and fifteen thousand dollars (\$815,000) at par of said bonds shall be retained by the trustee and shall be certified and delivered from time to time by the trustee and shall be used by the gas company only for the purposes of making additions to or extensions or betterments of its plant or acquiring other plants or property real or personal. The trustee shall not deliver any of the bonds in this subdivision three referred to except upon resolution of the board of directors of the gas company calling

for such delivery and stating that the bonds then called for are
3595 required for such additions extensions, betterments, repairs or costs as aforesaid, and also stating that said bonds or the proceeds thereof are to be used for one or more of said purposes; and a certified copy of such resolution under the seal of the gas company shall be conclusive evidence to the trustee of the truth of the matters therein set forth and shall constitute full and sufficient authority to the trustee to certify and deliver said bonds in the amount stated therein to be so required; and the trustee shall thereupon certify and deliver such amount of bonds to or upon the order in writing of the president or vice president of the gas company.

(4) The trust shall not be in any wise responsible for the application of any bonds or the proceeds of any bonds which may be certified and delivered by it in accordance therewith.

(5) Before certifying and delivering any bonds the coupons

thereon then matured shall be cut off, canceled, and upon demand the same shall be delivered to the gas company.

Redirect examination by Hon. H. —. BYERS:

Q. What is the name of that trustee?

A. Commercial Trust Company trustee.

Q. Where is it located?

A. It does not say here, but I believe it is Philadelphia.

Q. Who is president of it?

A. I don't know.

Q. Know any of the officers?

A. No.

Q. Judge Carr asked you about a pusher, a pusher is required to push gas down hill and not up hill, gas goes up hill all right?

3596 A. It is required to overcome resistance in mains whether it be a difference in elevation or a distance from source of supply.

Q. Where your system is loaded down with services at a long distance you use the pusher too don't you?

A. Depends on the size of the pipe.

Q. The truth of the matter is Valley Junction is higher than Des Moines, higher than where your plant is?

A. I believe about eight or ten feet higher.

Q. So really a pusher for Valley Junction is needed because it is so far away.

A. Yes, it is largely to overcome the resistance. That depends of course on the size of the pipe, if you put it through a large pipe you would not need a pusher.

Recross-examination by Hon. GEORGE H. CARR:

Q. Do you know Mr. Haines how much higher the elevation is between the plant and Valley Junction than it is at Valley Junction. In other words, what is the difference between the elevation at Valley Junction and along about Greenwood Park?

A. The height or elevation we have to push over and down the other side, I think it is about 180 to 210 feet, it is along in there.

Q. The fact that Valley Junction is really higher slightly than the elevation of your plant make any material difference or does it tend to overcome to any extent the fact that between here and there there is a hill that you must go over?

A. It would tend to overcome that to the extent of the difference in elevation.

Q. That is the difference of the down hill?

3597 A. Yes. Be very little practical difference if any, would not be measurable.

COURT: Is Valley Junction on the Coon river?

A. Yes. Well not right on the Coon river. I think about 400 yards from the river.

COURT: On a hill by the river?

A. No, sir; on the flat, right on the Rock Island tracks.

COURT: You say 800 feet high?

A. No, sir; I said Valley Junction itself is about 8 or ten feet higher than our plant.

Mr. BYERS: The main of course is about two feet under the river, the main is two feet lower than the bottom of the river here?

A. We would not measure from there, measure from the outlet of the pusher as far as pressure goes.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

3598

Tuesday Forenoon Session.

SEPTEMBER 19, 1911—at 9:30 a. m.

Counsel for the respective parties present, except R. O. Brennan.

Testimony on part of defendants resumed as follows:

JANSEN HAINES, continuing his direct examination, examined by H. W. Byers, Esq., testified:

Q. Mr. Haines, did you bring in Exhibit 18, I think it was?

A. I did.

Q. Now Judge Carr informed me that you would not be able to give me the information on account of the U. G. I. this morning?

A. I had four or five men working all night on it, but it is not ready; we have not been able to get it finished. I have here some of the contracts.

Q. I wanted the Brereton contract?

A. I haven't got that here; I looked for it yesterday but could not find it.

Q. What contracts do you have?

A. These are street main deposit contracts.

Q. Your counsel the other day, Mr. Haines, Judge Read, introduced into the record what was marked Complainant's Exhibit 27. I wish you would look it over and state whether it is correct, as you remember it?

A. This copy, as I understand it, has been made from the one on file; it appears to be all right.

Q. You signed it and swore to it?

A. Yes.

The MASTER: What is Exhibit 27?

Mr. BYERS: The tax statement for 1911.

The WITNESS: It is a statement that was made after the 3599 inventory was practically completed. The general contracts are enclosed in these envelopes.

Q. The memorandum on the outside indicates it?

A. Yes, the contract is enclosed inside and gives the form of the contract.

Q. Well, I will pick out one here that will answer my purpose. I have had the reporter mark as an exhibit the Percival-Porter Company contract, No. 10, on the envelope, under date of June 5. I think it is, 1909, and I ask, you if that contract in its terms is the usual contract made by the company for this class of work?

A. You will have to let me see it, General. They are not all exactly alike, but practically all the same; sometimes there is some change in the street.

(Witness examines contract.) Yes, it is.

Q. You brought in five or six of those contracts, now let me ask you if that method has not been pursued quite generally in the building of these additions to the city of Des Moines in the last four or five years?

A. Well, it is by certain parties.

Q. Well, take the additions like Gil Mar Park and Hyperion Park Additions and the additions worked out and promoted by Witmar & Kauffman and that class of real estate men; it has been customary to give them that sort of a contract, has it not?

A. I can answer it better by giving the names of the people with whom we made contracts.

Q. All right, give us the names of the people.

A. Looking over the package here you will find the name of the party with whom the contract is made.

Q. Just give us the names of as many as you can remember?

3600 A. The Interstate Realty Company, Harwood of Gil Mar Park, the Percival-Porter Company—

Q. Is that the name of that concern now?

A. Harvey Porter is agent.

Judge CARR: Mr. Haines while you are calling attention to those, will you also give the date?

Q. Contract #3 is Interstate Realty Company. It was made under date of September 8, 1908; No. 5, J. W. Witmer—that is Joel Witmer.

Q. That is not the Witmer that is in partnership with Frank Kauffman?

A. No.

Q. The old gentleman?

A. No, it is another Witmer; that is under date of September 26, 1908, No. 6 J. M. Munsinger, under date of August 28, 1908. No. 7 John A. Larson, under date of October 7, 1908. Here is No. 4, the Interstate Realty Company, under date of August 29, 1908. No. 10, Percival-Porter Company, Agents, under date of June 15, 1909.

Judge CARR: Is that the exhibit referred to?

A. Yes, it is; Exhibit 37. No. 12, Percival-Porter Company, Agents, under date of 6-5-09. No. 17, Interstate Realty Company, under date of May 25, 1910. Now you will notice I skipped some numbers and those perhaps are live contracts which have not been paid.

Q. Not cleaned up yet?

A. There are among those, I think there is one of—well I will bring you a list of those; I haven't got them here.

Q. If you will bring me such a list, I will be obliged to you. Now, the Briereton contract for the building, you haven't that?

3601 A. I haven't got that. I will look that up again; that is an old contract.

The defendants at this time, in connection with the examination of Mr. Haines, offer in evidence Exhibit 37, which reads as follows:

"DEFENDANTS' EXHIBIT 37.

Original.

JUNE 15, 1909.

Des Moines Gas Company, Des Moines, Iowa.

GENTLEMEN: If you will, at your own expense, extend your gas mains in Private Roadway West of an- running about parallel to 20th street from Washington to what would be Franklin Ave. and legally described as follows:

Commencing at a point 66.66 — South and 110 feet East of the North-west Corner of Lot Two (2) of the Official Plat of Section 33, Township 79, Range 24, West of the 5th P. M. in Des Moines, Iowa, there beginning: thence south 741.35 feet to the North line of Washington Street, thence East along said North line of Washington street 40 feet; thence North 741.35 feet; thence West 40 feet to the place of beginning (and bring connecting pipes for consumers inside of curb line in front of each lot on said streets) I will pay you the sum of Three Hundred Sixty and no 100 (\$360.00) Dollars.

I make this payment solely that I may have the convenience of the use of the gas and for the improvement of my property, and clearly understand that by such payment I acquire no interest whatever in the mains (and connecting pipes) which you may lay in pursuance of this request.

Yours truly,

PERCIVAL-PORTER CO., Ag't,
By H. M. PORTER, Sec'y.

It is agreed upon the part of the Des Moines Gas Company that as each residence on the line of the mains above specifically described is completed, and said Gas Company commences to supply the occupant thereof with gas, that said Gas Company will return to Percival-Porter Co. Agent the sum of Forty-four and no/100 (\$44.00) Dollars, until the whole said Three Hundred Sixty and no/100 (\$360.00) Dollars is returned, provided that as soon as eight connections shall have been made, the balance remaining shall thereupon be refunded in full, and provided further that the agreement to return any balance that may then be unpaid shall cease after five (5) years from the day of the date thereof.

DES MOINES GAS COMPANY.
JANSEN HAINES, *Manager.*"

3602 Cross-examination by Judge CARR:

Q Now, Mr. Haines, will you explain to the Master the circumstances under which these contracts are made and the object and purpose of the contracts?

A. Well, these real estate men who are developing city property, platting ground, in order to sell their lots, find it desirable to have the gas mains extended in front of them before there are any buildings on the lots, and they make the request and make the offer to pay for the extension of those mains in front of their lots in the form of this contract to me, and we take the money and refund it to them on the basis of the proportion of one consumer for every 90 feet that is secured within a specified time, generally three or five years.

The MASTER: In other words, they are taking the risk of getting sufficient inhabitants there instead of you?

A. Yes, sir; if we undertook to put these mains in without any return, I think we would be called upon for 500 or 600 miles in Des Moines. Now if they want to put up their money, we are very glad to accommodate them to that extent. We do not encourage it, but are willing to do it if they want to invest their own money in the improvement for the sake of selling their lots; and when we do get a consumer for every 90 feet, we refund the money.

The MASTER: That is about the average distance of consumers in the outlying district?

A. That 90 feet is the distance required in our franchise; it is specified we shall run a main where a consumer can be secured for each 90 feet.

Q. You spoke, Mr. Haines, of this sum being paid to you. It is in fact simply deposited by these promoters as a guaranty that the Company will get the business?

A. That is in fact it.

Q. Then that deposit is returned to the promoter according to the terms of the contract.

A. Yes, sir.

Q. After a certain number of connections, a certain portion is paid back until there are connections enough to cover the terms of the contract, and the money is all paid back.

A. Yes, sir.

Q. Now your attention has been called to these other contracts and you say, while the terms vary slightly in principle, they are all the same?

A. Yes, in the contracts which we make now, we found it necessary to put in a little clause, by which if the grade of the street is changed before the termination of the contract we will withhold sufficient money to relay our pipe to the new grade.

Q. Mr. Haines, how long has this practice been in vogue?

A. About four years, I think; we have made some contracts in previous years, but hardly to the same extent they have been, because there have been more real estate additions laid out in late years than formerly.

Q. You spoke of a number of contracts you had made besides those that you have brought in some of them, were still live contracts?

A. Yes, sir.

Q. Do you remember making a contract of this character with a Mr. Walker, the man who was a witness here for the city on real

estate values; do you recall making a contract with him of this character?

A. I don't remember whether I personally made a contract with him, but a number of contracts were made with him in former years, when he developed this south Des Moines property.

Q. Just such contracts as these?

A. Similar to these, on the same principle. We make these contracts with anybody that insists on paying their money for the privilege of having the mains laid.

Q. Now, Mr. Haines, you were asked by General Byers whether the salary which you received from the Des Moines Gas Company for services rendered to the Des Moines Gas Company was paid over by you to the United Gas Improvement Company, and you said no; Now, I inquire whether the salary which you received from the Des Moines Gas Company is in full compensation for the services rendered by you to the Des Moines Gas Company?

A. Yes sir, if I understand what you mean.

Q. That is to say, now, the Des Moines Gas Company pays you for your services and pays you in full of your services for all your time rendered to the Des Moines Gas Company?

A. Oh yes.

Q. Now, are you under salary from the United Gas Improvement Co., for services rendered to the Des Moines Gas Company?

A. No sir; the only salary I draw is from the Des Moines Gas Co., and the only service which I render is to the Des Moines Gas Company.

Q. That being true, you receiving no salary from the United Gas Improvement Company for the services which you are rendering to the Des Moines Gas Company, is there any reason which occurs to you why you should pay over any part of your salary to the United Gas Improvement Company?

A. No sir, there is not.

3605 Redirect examination by H. W. BYERS:

Q. I suppose you do not know really how bad they might need a little money, the United Gas Improvement Company,—I wanted to carry that joke a little further. If I understand this contract business, Mr. Haines, the Gas Company does not extend its mains unless the population of the consumers in sight are sufficient to at once bring a fair return for the cost of laying the mains, is that it?

A. Well, we do not determine the question whether it is a fair return or not; we are required to lay our mains where there is a consumer for every ninety feet; that is, we have construed our franchise in that way.

Q. That is under that so-called fifty year arrangement?

A. No sir.

Q. Before that?

A. Before that.

Q. And as you now, you do not extend the mains unless there is a consumer within ninety feet of the end of the old one?

A. Yes sir.

Q. In order to extend them beyond that, or if a man wanted to secure gas service beyond ninety feet, you are willing to put it in and do put in the mains if the person interested, or a number of persons, as the case may be, if they will deposit with you the money to carry the original cost of putting in the mains with a contract, that will later on when a certain number of connections are made, he will get his money back.

A. It simply covers the cost of wages and material used in the laying of the main, that we may estimate is sufficient for 3606 the consumer to deposit.

Q. In other words, the company is not out any actual money for the laying of the additional main, if I understand you right?

A. Well, the company is out all the services incident to the cost of the main exclusive of the wages and material of simply laying the pipe in the street.

Q. What cost would there be?

A. Superintendence, engineering, and construction charges.

Q. You mean overhead charges?

A. Yes.

Q. The actual expense of the material itself, putting the mains in the ground, is covered by the deposit of the real estate man promoting the addition, or the individual who wants gas service beyond ninety feet.

A. Yes, wages and material.

Q. That you have been doing for about four years?

A. We have been doing it for a number of years in that way.

Q. The last four or five years there have been more additions added to Des Moines than in ten or fifteen years before.

A. There has probably been more of a gross in the city.

Q. How many consumers must be on a line to get the main?

A. In proportion of one to ninety feet.

Q. What is the average now in town?

A. I would have to figure that out General.

Q. I wondered if you knew?

A. No I do not keep track of that.

Q. That is the way that the extensions have been made under the contract similar to Exhibit 37 for the last four or five years

A. Not all the extensions; just simply extensions for the 3607 development of these real estate speculations.

Q. Of course that is what I am talking about, not the extensions in general which are made because of the necessities of your business; but with respect to all these additions where the real estate agents wanted gas at once before the addition was settled up, and filled up with consumers?

A. Yes, that is the idea.

Q. Now, Mr. Haines, what real estate has your company purchased since 1906 that they now own and use in the gas business?

A. I do not think there has been any additional real estate purchased since that time in the name of the Des Moines Gas Company. You are now referring to that \$1,600.00 you noticed yesterday.

Q. I am just trying to find out now what real estate, if any, the

Company has purchased since 1906, or anybody else has purchased for them, which is now used in the Gas business.

A. None that I know of. I will say that \$1,600.00, while I haven't got the details here, I think is to cover improvements to real estate and goes into the real estate account.

Q. I know Mr. Douthirt explained that to me last night.

Recross-examination by Judge CARR:

Q. Now, Mr. Haines, you were asked whether the extensions of these mains we have been talking about covered by these *con*tracts cost the company anything, and you pointed out that it cost them for expenses beyond the productive labor and material. Now, is that an accurate statement, doesn't when the money is paid back, after the promoter performs the terms of his contract, the Company is paid, are they not, for the extensions paying for the productive labor and material?

3608 A. Oh yes.

Q. So that it is not accurate to say that these extensions do not cost the company anything for the productive labor and material?

A. My understanding of the question was that it did not cost them anything at the time.

Q. So it is strictly accurate to say that this money paid in is simply deposited and goes back to the man who deposited it?

A. Yes. The total amount of these contracts do not exceed Two Thousand dollars for that street main deposit: the account will amount to less than Two Thousand Dollars at any one time and generally is very much less than that.

The MASTER: You simply are relieved of interest on the money.

A. Yes sir.

Redirect examination by H. W. BYER:

Q. You don't mean all of the contracts of that kind that have been made only amount to Two Thousand Dollars?

A. No, the amount in the open account of street main deposits. Some have been paid for, and more made.

Q. What you mean is that you probably haven't more than *Two* Two Thousand Dollars in money on hand on such contracts at any one time.

A. Not only probably, but actually.

Q. But the total amount of that class of contracts would far exceed Two Thousand Dollars.

A. Oh, I suppose it might run Three or Four Thousand Dollars.

Recross-examination by Judge CARR:

Q. You mean to say you have an average of Two Thousand Dollars of this fund in open account, or that Two Thousand Dollars is your estimate of the maximum which you had at any one time?

3609 A. I think the figure is about \$1,980.00, which is the maximum at any one time, which we have at **present**.

Q. At times it will be materially less than that?

A. Yes, particularly in the winter time, it will naturally run below that.

Q. The average for the entire period will be considerably below that?

A. Very much.

The MASTER: You spoke of some contracts that were not there; I don't know whether you meant to say whether the parties did not comply with the contracts, or what was said?

A. These contracts are made for periods from three to five years; that is to say, if the number of consumers required in the contract will be secured on that particular extension, are secured within that period, the money will be refunded, so much for each consumer. Now, the contracts are numbered from the first contract which was executed consecutively on down, and on some the total number of consumers required have already been secured, and the contract is paid off, and on others only a part has been secured and are not fully paid off.

The MASTER: Then there is still some money coming to them?

A. Yes, still money coming to the contractor.

Excused.

Mr. BYERS: The defendants now offer in evidence Exhibit 3610 39, being an affidavit of Edward T. Pratt, former manager of the gas company and filed in this court in the case entitled Capital City Gas Light Company, complainant, vs. City of Des Moines.

Objected to on part of complainant as being irrelevant, immaterial, and does not purport to show the value at any time, but merely an investment. It is also objected to because it does not purport to be a complete copy of the affidavit, but is in fact a copy of only one exhibit attached to the affidavit. It is objected to for the further reason that it is incompetent as going to the question of value, for the reason that you cannot prove value by the evidence of witness, or copies of them, relating to different matters made many years ago and where the witness is not produced for cross examination.

The defendants offer in evidence Exhibit 38, in connection with Exhibit 39.

The complainant interposes the same objection as last above made to Exhibit 39.

The defendants offer in evidence Exhibit 40, which is also offered in connection with Exhibit 39, and is a part of the affidavit 3611 and statement of Edward G. Pratt filed in this court in the same case above referred to, and certified by the Clerk of the Court.

The complainant interposes the same objection as last above.

The defendants also offer in evidence in connection with Exhibit 39, defendant's exhibit 41, which is the transcript of the evidence attached to the affidavit of Edward G. Pratt, and shows or purports to set forth extracts of the evidence of Walton Clark, Wm. H. White,

as certified by the Clerk of the Court from pages 421 to 459 inclusive.

Complainant interposes the same objection as last above.

The defendants also offer in evidence, Exhibit 42, being the affidavit of Edward G. Cowdrey, filed in this court in the case entitled Capital City Gas Light Company vs. City of Des Moines, and certified to by Wm. C. McArthur, Clerk of the Court.

3612 Complainant interposes the same objection as last above.

The complainant moves to strike out each of the exhibits offered by the defendants, from 38 to 42 inclusive, for the reasons urged against the exhibits, and also because it appears from the exhibits, that they are exhibits filed in a suit, not between the same parties and to which the complainant was not a party.

W. F. DOUTHIRT, re-called on part of defendants, examined by H. W. Byers, and testified as follows:

Q. I am calling you now because you suggested to me yesterday on one or two occasions when Mr. Haines was on the stand, you could give me the information I was seeking at that time. Council for the complainant introduced and had read into the record as a part of the cross-examination of Mr. Haines, a certain mortgage executed by the Des Moines Gas Company in 1906, naming the Commercial Trust Company as trustee; where is that institution located, where is its headquarters?

A. In Philadelphia.

Q. What is its business generally?

A. It is a Trust Company and does a banking business; also acts as trustee under mortgages, trustee of estates, acts as registrar of stocks, and performs generally the functions of a trust company as they are understood in New York and Philadelphia.

Q. Do you have any connection with the Company?

A. None whatever.

3613 Q. Does it have any relation to the U. G. I.

A. None.

Q. Who is its President?

A. Mr. T. DeWitt Cuyler.

Q. Does he have any connection with the U. G. I.

A. No sir.

Q. This trustee, as I understand it, simply has the custody of the bonds of \$1,500,000.00 in bonds that were authorized to be issued at the commencement of the business of the Des Moines Gas Company.

A. The mortgage is the best evidence on that subject; that is in the record.

Q. Well, aside from the mortgage, you know that to be the case do you not.

A. The mortgage fully describes the duties of the trustee with respect to the bonds.

Q. Well, but it does not state, at least not so that I get the information, just the method of handling these bonds.

A. Yes, it fully states the method.

Q. The trustee holds the bonds.

A. I prefer to answer these questions from the mortgage itself. The mortgage is the contract under which the trustee proceeds and it fully describes and defines the powers and duties of the trustee.

Q. I simply want to get at, if I can in my own way, the method of taking care of these bonds?

A. You want me to construe the mortgage.

Q. Well, the trustee has nothing to do with the mortgage, except that the mortgage limits the trustee's powers with respect to the bonds.

3614 A. The trustee has very much to do with the mortgage; the mortgage is the document under which the trustee acts, and the trustee must look to the mortgage for every step the trustee takes.

Q. The trustee begins by having possession of that \$1,500,000.00 of bonds, is that correct?

A. The trustee begins by taking a copy of the mortgage before it is executed, and referring it to its counsel to determine whether the mortgage is in such form as to make the trustee willing to accept the trust.

Q. Then what is done?

A. If the mortgage is in form, satisfactory to the trustee, and the trustee's counsel so advises, then the mortgage is authorized by the mortgagor and executed both by the mortgagor and the trustee.

Q. And what becomes of the bonds?

A. The powers and duties of the trustee with respect to the bonds are fully set forth in Article 1 of the mortgage, which was read into the record by Mr. Haines yesterday, and which I shall be glad to read again, or if you prefer, construe it for you.

Q. What I want to know, were the bonds issued at the same time of the mortgage?

A. No sir; the bonds have not all been issued yet.

The MASTER: He wants to know if they were executed?

A. Yes, Article one of the mortgage provides as follows: Upon the recording of this mortgage, (which I understand means recording of it in the office of the recording officer, of the County where the property is located, in Polk County, Iowa) upon the recording of this mortgage all of the bonds hereby secured shall be executed by the Gas Company and delivered to the trustee.

3615 Q. So that at the beginning then, these \$1,500,000.00 authorized issue were delivered to the Commercial Trust Company at Philadelphia?

A. They were executed by the Des Moines Gas Company and delivered to the Commercial Trust Company, Trustee; but you will note that the bond itself contains this clause. This bond shall not be valid until it shall have been authenticated by a certificate hereon duly signed by the Trustee under the mortgage.

Q. That is all right. I simply wanted to find out how the business is done. Now, beginning then with the issue of \$1,500,000.00 bonds of the Des Moines Gas Company, in the hands of the Com-

mercial Trust Company of Philadelphia, as Trustee, just what method does the Des Moines Gas Company pursue in directing and delivering the issuance and delivery of the bonds?

A. I think you will lead us into a misapprehension on the word "issue." These bonds although they were signed by the Gas Company at the time of the recording of the mortgage, and delivery to the trustee, signed by the Gas Company, are not a valid obligation until authenticated by the Trustee.

Q. And delivered for the proper purpose?

A. Yes. And they are not issued, as I understand the meaning of the word issue, until they have been so authenticated, by the trustee, and delivered back to the Gas Company, and further until the Gas Company for a proper consideration has parted with the title.

The MASTER: Then the Treasurer of the Gas Company disposes of them in the market.

3616 A. Yes, sir.

Q. This \$1,500,000.00 in bonds, as I understand your testimony, and the terms of the mortgage, was authorized for the purpose of covering the extensions and improvements upon the Des Moines Gas plant.

A. In part; that is part of them were authorized for that purpose.

Q. What were not authorized for that purpose were authorized to pick up the then outstanding bonds of the Capital City Gas Light Company, which had been assumed by the Des Moines Gas Company.

A. In part.

Q. What do you say as to the purpose in making the mortgage at the time it was made and authorizing the issuance of the bonds, being to make it possible—in other words, to provide the means for the Des Moines Gas Company to pay for its extensions and improvements as they were made by the sale of these bonds?

A. It was the purpose and intention to provide bonds, which, if they could be sold, would provide the means to make these extensions.

Q. That was the purpose for which the Company had executed the mortgage in the first place, to provide bonds?

A. To provide for the future issue of bonds which if it could sell them would furnish funds for extensions.

Q. All the extensions and improvements that have been made by the Des Moines Gas Company in the last four years, and a fraction, since March 1906, have been taken care of by the sale of a portion of these bonds, is that true or not?

A. No, that is not true.

3617 Q. What is the fact about that?

A. The fact is, that the Company has not been able to sell the bonds for enough money to take care of its extensions and improvements.

Q. Who purchased the last issue of bonds?

A. The United Gas Improvement Co.

Q. Who purchased the issue just prior to the last issue?

A. The same company.

Q. Who purchased the first issue?

A. The same company.

Q. The truth is, that all of the bonds of the Des Moines Gas Company represented by that mortgage that has been read into the record, were sold by the Treasurer of the Des Moines Gas Company to the United Gas Improvement Company.

A. Yes.

Q. And the United Gas Improvement Company still holds them?

A. No, it does not hold all of them.

Q. What has become of them?

A. It sold some of them, or exchanged them for other securities.

Q. You say it has sold some of them?

A. Yes.

Q. What part?

A. I can't tell you exactly; I think something like Three or Four Hundred Thousand Dollars.

Q. When?

A. As much as two or three years ago.

Q. Does the United Gas Improvement Co. operate any gas plant anywhere except the Philadelphia plant, under lease?

A. Yes.

Q. Where?

3618 A. One at West Waterbury, Conn.

Q. Any other?

A. One at Vicksburg, Mississippi.

Q. Any others?

A. No, not that I remember.

Q. All of the other concerns you were interrogated about on a former occasion of this trial, the U. G. I. simply owns stock in them.

A. I wouldn't like to make such an inclusive answer as that. I will say generally speaking, the United Gas Improvement Co. occupies the relation of stockholder to most of the companies in which it is interested.

Q. I want to get back to this bond proposition, until I clear it up to my own satisfaction. On page 233 of this record that has been referred to several times as the Des Moines Gas Company, No. 1 stockholders' and directors' minutes, is set out what purports to be a statement prepared by the treasurer of the Des Moines Gas Company, which in substance states—that since March 1, 1906, to December 31, 1910, \$472,993.63 has been expended for additions, extensions, betterments of the plant of the Des Moines Gas Company. Now, the statement also indicates that of that amount \$412,000, has been absorbed or taken care of by the issue of bonds. The bonds referred to are the same bonds we are talking about now, and covered by the mortgage just referred to in your testimony.

A. Yes.

Q. Now, that left a balance as the treasurer states here, for which bonds may be issued at par of \$60,993.63.

A. Does it say issued there?

3619 Q. Yes, it uses these very words. If I have studied this book to any purpose at all, what little time I had to look it over, I get this notion from it, and from these regular annual statements of your treasurer, Mr. Lilly, who, I understand, is also treasurer of the U. G. I., that during the year, whatever extensions, improvements and betterments are made, whatever money is needed for that purpose, the U. G. I., aside from what the local company has on hand, furnishes the money to the Des Moines Gas Company, and takes its obligation bearing interest at six per cent, and covering in addition to the money advanced for this purpose, such open account as the company may have, that is the U. G. I. may have, with the local company, and that paper is carried until the end of the year, the end of the year that Mr. Lilly has chosen in which to make his annual statement, and then upon his statement as to the amount that has been put into the property in the way of extensions, betterments and improvements, and whatever the U. G. I. has furnished in money and service, as the case may be, is taken care of by an issue of bonds and the sale of bonds to the U. G. I.; is not that about right?

A. No that isn't right at all.

Q. What is wrong with it?

A. If the reporter will write out for me a copy of that very long and involved question I will undertake to dissect it and show where it is wrong.

Q. Well, I will put it in another way; maybe we can get at it without going to that trouble. Going back in this defendant's exhibit 27, it is true, is it not, that the beginning with the first year

3620 of the operation of the Des Moines Gas Company, under that name, down to and including the year 1910, the treasurer of the company has made regular annual statements covering the expenditure of the Des Moines Gas Company.

A. No, I think that is not true; I think those statements are not made annually.

Q. How often are they made?

A. If you will let me have the record, I will pick them out for you.

Q. Can't you tell in a general way?

A. Yes, I can tell you for the last two years or so the statements have been made semi-annually and prior to that time I think the record will disclose they were made at irregular periods.

Q. Just find the last one before the one on page 233.

A. Wouldn't it be better to take the first one and go right through.

Q. If you want to take the time to do that, and if you prefer to do it that way—I want to know all you know about this business, just exactly how this property is handled, what is done with these bonds, what is paid for them, how they are gotten out of the hands of the trustee, upon whose order or direction they are turned

over, if at all, to the United Gas Improvement Company. I don't intend to leave anything under cover if I can get to it in any way.

A. The mortgage of March 1, 1906 with respect to the \$815,000.00 of bonds which were reserved for the purpose of making additions, extensions and betterments, provides: That the trustee shall not authenticate and deliver any of these bonds except upon a resolution of the Board of Directors of the mortgagor calling for such delivery, and stating that the bonds at the time called for are required for the purpose of extensions, additions or betterments, and stating also that the bonds or proceeds thereof are to be used for this purpose.

Q. Then, right there now, if I understand that, all that was necessary at any time for the U. G. I. to secure the delivery to it from this trustee of bonds to cover expenses, and improvements that were actually made, was to have a resolution passed by the Board of Directors of the Des Moines Gas Company setting forth the fact that the money had been expended or was needed for that purpose and directing the treasurer to certify the resolution and that fact to the trustee, and upon that certification the bonds would be turned over to the U. G. I.

A. That is not right. In my answer to the question preceding that, I was going on to describe the whole process.

Q. I beg your pardon for interrupting you; go ahead and do it in your own way.

A. Well, I will refer back again to my answer to the question preceding the last one, in which I stated the provisions of the mortgage with respect to the certification and delivery by the trustee of any part of the \$815,000.00 bonds mentioned in Article I of the mortgage as reserved for the purpose of additions, extensions, and betterments. The provision is that the trustee shall not certify and deliver any of the bonds mentioned, except upon resolution of the Board of Directors of the Des Moines Gas Company, calling for the delivery and stating that the bonds are required for additions extensions and betterments and also stating that the bonds or the proceeds thereof are to be used for the purposes mentioned.

Q. I wanted to understand a word you read there. I do not have the mortgage before me. Does that say or required for extensions?

A. Stating that the bonds then called for are required for such extensions, etc., and also stating that said bonds, or the proceeds thereof are to be used for such purposes, and a certified copy of such resolutions under the seal of the Gas Company, shall be conclusive evidence to the Trustee of the truth of the matters therein set forth, and shall constitute full and sufficient the authority to the trustee to certify and deliver said bonds in the amounts stated therein to be so required. That is a provision which is quite customary in mortgages of this sort, and is intended for the protection of the bond holder, so that no bonds may be certified and delivered by the trustee unless the mortgagor has actually spent in extensions and betterments the money.

Q. That does not say it must be actually spent does it?

A. Well, it says the bonds which are required for that purpose and the course which has been followed under this mortgage, is that the money has actually been spent before the trustee is asked to certify and deliver bonds.

Q. In the meantime, the Company has paid six per cent interest on the money?

A. Oh no, not at all.

Q. That is the way it looks to me.

A. Well, it looks wrong to you, I am sorry to say. Now you will note the date of that mortgage was March 1, 1906. On June 30 1906, the minutes on page 68 show that a statement was presented to the Board of Directors——

Q. What is the date of that?

A. This was presented to the Board at a meeting 3623 August 16, 1906, and appears on page 68 of the records. This statement shows from March 1, 1906 to June 30, 1906 the Company had expended the sum of \$58,730.77 in making extensions, betterments, etc. The Board at that meeting passed a resolution certifying to the trustee that the sum of \$58,730.77 had been expended for the purposes mentioned, and requested the trustee to certify and deliver \$58,000.00 of bonds, leaving the odd amount out.

Q. Take up that case as a concrete case. Now, where had the Company gotten the money, the \$58,000.00 it had spent up to that time?

A. I couldn't tell you without referring to the books which cover that period of operation.

Q. Part of it was gotten from the U. G. I.

A. I cannot tell you without referring to the books covering that period of operation.

Q. At any rate, the money expended up to that time had been provided in some way to the Des Moines Gas Company, either borrowed it here or it came out of the receipts, or the U. G. I. loaned it to them.

A. The money had been either the result of their operations; it had either been receipts from operations or borrowed from somebody.

Q. Now right at that point, this \$58,000.00 that the record shows had been invested in the plant, all that was necessary to get bonds enough to cover that, was for the directors of the Des Moines Gas Company to pass a resolution setting forth the fact of the expenditures for the purpose for which they were made, and directing the treasurer to certify the resolution to the trustee, and upon that certification, the trustee would deliver the bonds to the U. G. I.

3624 A. No.

Q. Isn't that right?

A. No.

Q. What is the matter with it?

A. The U. G. I. had nothing to do with it.

Q. Let me put it in another way; of course I can see how you might answer that no and be right. Mr. Lilly was the treasurer of both companies.

A. Yes.

Q. He did the certifying to the trustee.

A. No.

Q. Who did?

A. The Secretary.

Q. Who was the Secretary?

A. At that time, Mr. W. A. McEwen.

Q. He would certify the resolution and the trustee would turn the bonds over to Mr. Lilly who was treasurer of the Des Moines Company, and was treasurer of the U. G. I.

A. The trustee would follow the directions of the resolution and the resolution I am now reading from the record authorizes the trustee to deliver the same to or upon the order in writing to the President of the Des Moines Gas Company.

Q. Who was president of the Des Moines Gas Company at that time?

A. I think Mr. Bodine was.

Q. What relation did he have with the U. G. I.

A. First Vice President.

Q. Then Mr. Bodine when these bonds were delivered to Mr. Bodine went through the form of selling them to the U. G. I.

A. I would say he sold them.

Q. He sold them to the U. G. I., the company you say took the bonds.

3625 A. Yes.

Q. Then the U. G. I. when the money was received, the treasurer of of the Des Moines company who was the treasurer of the U. G. I., would simply enter upon the books the credit to the Des Moines Gas Company, whatever it should be.

A. No, he wouldn't do that; he would collect the money, and deposit it in the Des Moines Gas Company's bank account.

Q. He would actually collect the money already spent, even though the U. G. I. had furnished part of it, is that the idea?

A. Why, he would carry out the transaction just as if the bonds were sold to you.

Q. Well that is to say, then that particular issue, Mr. Bodine would sell the bonds to the U. G. I., who would act for the U. G. I.

A. Probably Mr. Lilly, or perhaps the Board of Directors of the U. G. I., or one of its committees.

Q. And the U. G. I. then would pay him in cash the amount of the bonds less whatever discount might be agreed upon.

A. Yes.

Q. And then Mr. Bodine would turn that over to Lilly, the treasurer of both companies, the company.

A. Yes.

Q. And Lilly would make an entry of it in the books that he keeps in Philadelphia.

A. Lilly would deposit it in the bank to the credit of the Des Moines Gas Company, and make the proper entries.

Q. That is the way it is done is it?

A. Yes.

Q. What was the discount on these bonds?

- A. On that particular lot, I couldn't tell you without referring to the books covering the operations of that period.
- 3626 Q. No trouble about selling them; did they have to coax the U. G. I. to take them.
- A. Yes, I have seen the U. G. I. very reluctant.
- Q. It was the U. G. I.'s own obligation was it?
- A. No.
- Q. The U. G. I. owned the Des Moines Gas Company.
- A. Yes,—no.
- Q. You came pretty nearly going wrong on that question?
- A. You very nearly mislead me.
- Q. The books show and you know it to be a fact that the U. G. I. held all the stock of the Des Moines Gas Company.
- A. Yes.
- Q. Nobody else had any financial interest in the property of the Des Moines Gas Company except the U. G. I.
- A. No, I wouldn't say that was so.
- Q. Can you think of anybody else?
- A. Yes; at that time there was \$400,000.00 bonds of the Capital City Gas Light Company outstanding at that time. Those bond holders certainly had a financial interest in the property.
- Q. That is what you thought I was getting at.
- A. I didn't know what you meant by financial interest.
- Q. I meant financial interest in the property as owners or part owners of the property.
- A. Nobody else held any stock.
- Q. Except the U. G. I.
- A. That is right.
- Q. So that the bonds that the U. G. I. was taking was simply the obligation of the company in which it owned all of the stock?
- A. That is right.
- 3627 Q. And they discounted the bonds ten per cent at that time.
- A. I can't tell you that without referring to the books covering that period. I know we discounted some bonds ten per cent; Whether this particular lot or not, I couldn't tell you.
- Q. Is this a correct statement Mr. Douthrit; Mr. Haines on the witness stand yesterday said, whenever he had to have money here for the purpose of making extensions and improvements, and so on, and he didn't have the money, he got the money from the U. G. I. and paid 6% interest on it and that the open account of the U. G. I. after thirty or sixty days, interest was figured on that at 6%. Now, from some time, say from the beginning of the life of this corporation, the Des Moines Gas Company, the business has been carried on just as Mr. Haines said, the U. G. I. furnishing the money, taking 6% interest on it until such time as it desired to have the bonds disposed of and then they were disposed of, is that right?
- A. If I should answer that question, yes or no, it would lead to misapprehension.
- Q. Is there any question but what the U. G. I. determined origin-

ally just when a bond sale should be made,—I use the *the* word originally there to get away from your resolution and getting back to the actual direction of the making up of the record of the disposition of the bonds.

A. No.

The MASTER: Right here I would like to ask a question. I notice by the report of Mr. Hagenah that between February 28, 1906 and February 28, 1907, there was \$418,914.28 for total extensions and improvements to that time. I find there was only authorized bonds of \$58,000.00 on extensions and improvements that were issued under the resolution dated August 15, 1906.

3628 A. Yes sir.

The MASTER: How do you account now for the difference between that \$58,000.00 and \$418,000.00?

A. \$418,000.00 was the amount spent up to February 28, 1906.

The MASTER: No; Between February 28, 1906 and February 28, 1907 this amount \$58,730.77 is the expenditure from March 1, 1906 to June 30, 1906.

A. There is a difference in the dates there.

The MASTER: But there is no other bond issue and there is a difference of over \$360,000.00.

A. I don't get just what you are getting at.

Mr. GUERNSEY: Mr. Hagenah says the \$418,000.00 includes that \$285,000.00 bond item that went for the holder and that sort of thing.

The WITNESS: Does that answer you?

The MASTER: I don't know; I am asking you the question; I don't know whether it does or not.

A. At the directors meeting March 20, 1907, there was a statement presented to the board showing the total expenditures for additions etc., from March 1, 1906 to December 31, 1906 amounting to a total of \$129,282.11.

Mr. BYERS: Is that the second?

A. That is the second.

The MASTER: In 1906?

A. Yes, December 31, 1906, the total from March 1 1906 which is the date of the mortgage, to December 31, 1906, was \$129,282.11 from which is deducted the \$58,000.00 certified under the resolution of August 15, 1906, leaving a balance of \$71,282.11 at that time.

3629 The MASTER: That makes a difference still of something over \$4000.00.

A. So there would be; Mr. Hagenah covers two months more than is covered here. We are working on different scales; That would undoubtedly explain the difference. No doubt the difference between this figure which you have here and Mr. Hagenah's figure which amounts to about \$4000.00 is covered by the extra two months which Mr. Hagenah has included in his statement as he has made it up.

The MASTER: It is \$4,622.17.

A. Yes sir that is covered by the extra two months which Mr.

Hagenah has in his statement. Under the resolution adopted by the Board on March 20, 1907, which appears on pages 87, 88, and 89 of the record, the trustee certified \$71 000.00 in bonds.

Q. Well now, without taking the time to go through that all, that issue was disposed of in the same way as the former one was, that is, the resolution was certified by the Secretary, and the trustee in response to the certification would deliver the bonds to the President of the Des Moines Gas Company, who was an officer in the U. G. I., and then the bonds were sold by that officer to the U. G. I. at whatever discount was agreed upon at the time.

A. Yes.

Q. And the money or credit or whatever it was, actual money, that would be in the bank and credited to the Des Moines Company and whatever obligations or accounts there was between the *the* U. G. I. and the Des Moines Company, would be adjusted either at the end of the year, or at that time.

A. Adjusted, yes.

3630 Q. When the President of the Des Moines Company negotiated the sale of the bonds to the U. G. I. and receiver the money for them, if the U. G. I. at that time was holding the obligation of the Des Moines Gas Company, in the form of a promissory note, then that note would be paid out of that money; is that the way it is done?

A. Yes, the Des Moines Gas Company would want to stop interest on that note.

Q. All that class of obligations between the Des Moines Gas Company and the U. G. I., where they drew interest at all, was at the rate of 6%?

A. Yes.

Q. And these bonds drew interest at 5%.

A. Yes.

Q. So that every time the Des Moines Gas Company made extensions and improvements with money furnished by the U. G. I., at 6% interest, instead of disposing of the bonds and using the money from the bonds to make that extension and improvement, would be just one per cent short, wouldn't they?

A. I don't understand that.

Q. The mortgage provides that bonds may be issued before the extensions and improvements be made after certification.

A. It was never done.

Q. When you didn't do it and adopted the other method, it was more expensive to the Des Moines Company?

A. You assume the Des Moines Company could have sold the bonds at par.

Q. Certainly, or at least the same rate they finally did sell them.

A. That is unwarranted.

3631 Q. The MASTER: After paying the interest on the bonds that is about the only fixed charge there is.

A. That and the interest on the preferred stock contracts.

The MASTER: What becomes of the balance of the profits?

A. They have always gone into the property. I want to modify

that; any cash remaining over has been used to retire preferred stock contracts.

Q. These preferred stock contracts are held by the U. G. I.

A. Yes.

Cross-examination, Mr. GUERNSEY:

Q. Now pursuing the same line of General Byer's examination, if the U. G. I. Company held all of the stock in the Des Moines Gas Company, as you say it did, can you imagine any profit the U. G. I. Company could derive, assuming there was one, by charging six per cent on these advances instead of taking five per cent bonds?

A. No.

Q. In the ultimate result?

A. Not in the final windup.

The MASTER: If I understand the question of interest here, so far as the cost of gas is concerned, the question of interest on extensions or notes or bonds, and all those things, don't enter into it at all.

Mr. GUERNSEY: That is right.

Mr. BYERS: That is not our understanding of it; we do not concede that at all.

Mr. GUERNSEY: I understood your Honor to be talking of our actual figures; the actual figures introduced on *on* both sides 3632 do not include the items of interest on the bonds and things of that kind at all.

Mr. BYERS: Does not include items of interest on bonds, but does include interest on these obligations.

Mr. GUERNSEY: That I am advised is an error. You will remember there cannot be any difference between us. These adjustments of their operating accounts with ours does not show anything of any consequence and could not affect the results at all.

Q. Now, to go back—Counsel ask whether the U. G. I. was coaxed to buy these bonds, or did the fact that the U. G. I. was stockholder and had to put up this money to enable it to do business coax it to take the bonds.

A. That helped, yes.

Q. In other words, a public utility in a place like Des Moines, growing rapidly contemplates not only the original investment but continual additions to it.

A. Exactly.

Q. So that the man who puts his money in it must expect that he cannot make an investment of a million dollars or two million dollars, but that he must constantly add to that investment.

A. He must face the certainty that fresh capital is going to be required every year, almost every day, and Exhibit 18 which is now in General Byer's possession will show the estimates that are made.

Q. So that if he makes this investment, he don't make the investment under circumstances where he knows if he is sick of it he can retire, but he makes it and he knows that he must continually add to it whether he likes it or not.

A. Yes sir.

Q. It he doesn't add to it, he is going to lose his original investment.

A. Yes.

Q. Was it this fact that the Des Moines Gas Company had to have money in order to protect the investment of the U. G. I. Company in its stock, that coaxed the U. G. I. Company to buy these bonds?

A. That was it.

Q. Now then, Counsel said nobody else held stock but the U. G. I. Company in view of that fact was there anybody else on whom the U. G. I. Company could call to advance this money.

A. Nobody.

Q. So that one benefit the Des Moines Gas Company has derived from the fact that the U. G. I. Company owned this stock was that it had somebody constantly to put up this money that it needed in connection with its business.

A. To perform its obligation to the public, yes.

Q. You said the U. G. I. Company bought these bonds. I want to ask you whether the U. G. I. Company tried to sell the bonds to to others.

A. It has.

Q. Has it found others to buy them on as favorable terms it gave itself?

A. It has not.

Q. Is it willing to sell the bonds it has now to our friends on the other side at par?

A. They can have them all if they want them.

Q. In other words, the reason they are carrying them, there isn't anybody else that will carry them on as favorable terms.

A. No.

Q. Is there any other reason than that?

3634 A. No.

Q. If the U. G. I. wouldn't put this money up what would be the alternative that would confront the Gas Company?

A. It would have to sell its bonds for whatever it could get for them, or it would have to go without making extensions and improvements.

Q. That would mean wrecking it ultimately?

A. Ultimately. I do not suppose the public of Des Moines would stand for that very long.

Q. So that if this stockholder had not advanced the money, the Des Moines Gas Company would have had to buy that service for whatever it had to pay for it in the market.

A. It would.

Q. In the meantime, assuming the fact that the U. G. I. Company was the sole stockholder and proposed to continue the sole stockholder, could it make any profit out of the transaction whatever ultimately.

Objected to on part of defendants as not proper cross-examination.

A. No it could not.

Q. The U. G. I. Company would get interest on the bonds as long

as it owns them, in return for that interest would have to put up its money to buy them.

A. Yes.

Q. And buy them at a price higher than the bonds were salable in in the market.

A. I think so.

Q. This also relieves the local people from all the work and anxiety that would be incident to trying to finance this proposition if the U. G. I. Company did not furnish this financial backing.

A. Yes.

Mr. BYERS: Who do you mean by the local people,—the employees.

Mr. GUERNSEY: Yes, somebody would have to do the work of selling bonds.

Q. And it also assures the Des Moines Gas Company that whatever the financial situation is, it will have what money it needs without paying exorbitant prices for it.

A. Yes.

Q. Now then, I want to go for a moment to Counsel's proposition as to the way in which he would finance improvements and issue bonds at first. Of course a part of the improvements is paid for out of the earnings.

A. Yes.

Q. So that until it is completed, you wouldn't know how many bonds would be required?

A. Yes.

Q. In the next place if you issued the bonds, first sold them, your interest on the total amount would begin then.

A. Yes.

Q. The bonds also would have to be sold at a discount unless sold to the U. G. I. Company?

A. I think that is true, yes. I don't think a five percent bond on this gas property would sell at par, or I don't think that it would sell at the price the U. G. I. Company paid this company for them. That is, however, a matter of opinion largely.

Q. It would be necessary to employ a broker to sell them.

3636 A. Necessary to employ someone who knew how to sell securities.

Q. There would be some expense there?

A. Yes.

Q. So that it won't do in order to compare these two methods of doing the business to merely compare the rate of interest that a short time note bears with the interest rate of the bond.

A. No.

Redirect examination by H. W. BYERS:

Q. What do you mean by a man wouldn't put his money in; the U. G. I. is the sole owner of the stock in this company?

A. Yes.

Q. Have they ever put any money into this plant at all except the money that is represented by what they have taken these bonds for.

A. Oh yes.

Q. What other money did they put in?

A. Well, when they made the original purchase of stock.

Q. What did they put into it then?

A. Of the Capital City Gas Light Company, back in '86.

Q. What money, how much money?

A. I don't know.

Q. Did they put in a dollar except what was then represented by bonds.

A. I would have to investigate the accounts.

Q. The truth is, all there is to this whole proposition Mr. Guernsey has been inquiring about, is the fact that the U. G. I. has financed its own property, property in which it is the sole stockholder, 3637 by the purchase of these bonds, so called purchase of these bonds and the money that it has credited to this Des Moines Gas Company in exchange for bonds.

A. If you will cut that question off after the word bonds, where it first occurs, I will answer yes.

Q. The truth is that every dollar that has gone into this Des Moines Gas plant is represented by the indebtedness that stands against it today.

A. I wouldn't say that.

Q. What other money has gone into it except the earnings?

A. Well,—

Q. What other money, original investment, has gone into this plant, except what is represented by the outstanding indebtedness of the company today?

A. That requires an analyzation of the whole situation.

Q. Has any gone into it at all?

A. I would say yes.

Q. From the U. G. I.?

A. What difference does it make?

Q. Has the U. G. I. put in any other money into the Des Moines Gas plant than what is represented by the outstanding indebtedness, unless it would be what is represented by what has already been cancelled by the earnings.

A. As I understand it, some of these six percent contracts have been retired; some of these six percent preferred stock contracts have been retired.

A. Aside from that all the money the U. G. I. has ever put into this property is represented by outstanding indebtedness, is it not?

A. I could not answer that without analyzing the whole situation from the beginning.

Excused.

3638 At this time, 12 m. an adjournment was taken until 9:30 a. m. September 20, 1911.

Wednesday Forenoon Session.

SEPTEMBER 20, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

Prof. EDWARD W. BEMIS, being first duly sworn on part of defendants, examined in chief by Hon. H. W. BYERS, testified:

Q. Give the reporter your name and residence?

A. Edward W. Bemis; residence, New York City.

Q. How long have you been a resident of New York City?

A. Since January 1910.

Q. What is your profession or business?

A. I have been a statistician and student, an investigator of these municipal questions—monopolies, as I call them—public utilities, for a good many years.

—, I wish you would state just what your training has been along the line of public utilities, your general training?

A. After graduating at Amherst in 1880, and taking four years at the Johns Hopkins University in special studies, economics and history and political science, I went into college work. For five years I had charge of history and political economy at Vanderbilt University at Nashville, Tennessee; that was up to 1892. During the next three years, from 1892 to the summer of 1895 I was Associate

Professor of economics and sociology in the University of Chicago; then for two years I was doing general statistical work for the state of Illinois and the United States Government, and for several cities.

Q. I wish, as you go along, Professor, you would state the character of the work, beginning now with Illinois, the character, and the scope and so on of the work and investigation?

A. First let me finish the teaching period. From 1897, the summer of 1897, until the summer of 1899, two years, I had charge of economics and history at the State Agricultural College, Manhattan, Kansas, making in all ten years of college teaching. I had been always interested, and a student of public utilities, but my attention was especially directed to the subject by Professor Seligman, of Columbia University, in 1890, when he asked me to prepare a paper on the subject of municipal gas works in the United States for the American Economic Association. This I did and it led to a request that I enlarge it into a monograph or what might be called a small treatment of the subject, 150 pages perhaps, which was printed by the American Economic Association in 1891, I think. In 1892, while still at Vanderbilt University, I was interested in a movement for cheaper gas in Nashville, which led to our employing expert engineers from R. D. Wood & Company and Bartlett, Haywood & Company to investigate the subject. I forget whether we employed men from both companies or from one. We corresponded with both. Then I was employed in the first gas case I ever was on here at Des Moines, in the spring, I think it was, or late winter of 1892.

Q. 1892?

A. 1892, nineteen years ago?

Q. What was the character of that investigation which was on in that suit?

A. It related to a reasonable price for gas here in Des Moines?

3640 Q. What, if anything, did it have to do with the value of the property of the gas plant and apparatus and so on?

A. The value of the property and the operating costs were as usual two vital points in the matter.

Q. Both involved in that controversy?

A. Yes. The deposition was taken from me on the same subject, in the case in 1895, but the deposition was taken in Chicago, I think, and I did not go on to Des Moines at that time. In 1896, immediately after leaving the University of Chicago, I was employed by the state of Illinois to make a report upon the gas and street railway franchises of Chicago, which was published as a part of the report of the Bureau of Labor Statistics of Illinois for the year 1896.

Q. What was involved in the preparation of the material for that report?

A. I had to go through all the financial reports of the Company, all the documents of the companies, street railway and gas, and all the reports that had been filed, both in connection with various litigation, running through many years; in fact all the data that could be secured, of a financial or engineering character. I did not attempt to make an appraisal of the property, except that I did secure some important evidence on the subject which I used in my report.

Q. And what purpose or conclusion was sought to be reached from the report, or because of the report?

A. The report was not made with respect to any pending litigation, but there was a great interest at that time in Chicago on the subject, because of legislation that was pending at Springfield, Illinois, with reference to giving street railways fifty year franchises and with reference to giving gas companies perpetual franchises, and of the right to keep out competitors by requiring every competitor should have the consent of the majority of property owners on every mile of street, and so the public interest in the matter led to the request, I suppose, for the report. Then I went to Kansas, to the State Agricultural College, as already mentioned, and there wrote a book on municipal monopolies, which was published by Crowell & Company in 1899. I wrote about half of the volume and edited the rest, giving full credit to the others who assisted. This book passed through four editions and is now out of print. It has been extensively used in the colleges of the country as a text book for graduate students, I am told by Professors of political investigation.

3641 Q. What investigation was made and used by you in making up the material and matter for that publication?

A. Data, so far as I could get it, upon the question of investment, operating expenses, rates of charges, franchise values, suc-

cess or the opposite of municipal plants in this country. It attempted to treat on almost all the sides — public economists were interested with respect to municipal utilities. In the spring of 1899 I was called to Detroit on leave of absence from Kansas, to appraise the franchise values of the Detroit Street Railways for a Commission consisting of Governor Pingree, who was then mayor, I believe, yet he may have been Governor at that time, and two business men of the city. This commission was desirous of a valuation with reference to a possible municipal purchase, and the Street Railway Company agreed with the City to leave to me the valuation of the franchises. The question had never been undertaken before in that form, and this was the first valuation of a franchise ever made, as I know of, in this country. Some of the principles

I adopted were followed by Professor Henry C. Adams in 3642 his appraisals of franchise values for the Interstate Commerce Commission. Professor Cooley, of the State University, had charge of the physical valuations and I of the other; that was made first and then I was called on to discuss the question of franchise values. At that time some of them were about expired and some of them had many years to run yet, making it a very technical question as to that to do with it.

Q. How long were you engaged in that work?

A. Well, in the neighborhood of two months. I gave to it, not all the time in Detroit, some of it back in Kansas. The report I made was accepted by both sides, but the purchase fell through, owing to a decision of the State Supreme Court that under the constitution the state could not have municipal ownership of street railways.

Q. That was a pioneer case in the state of Michigan?

A. Yes, sir. Since then the law has been changed. Immediately afterwards I went to New York and opened an office for a sort of a clearing house on municipal matters, particularly public utility questions. I called it Bureau of Economic Research, and there were two other men prominently identified with it, Professor John W. Commons, now of the University of Wisconsin, and Mr. George H. Shibley, largely at the head of the direct legislation movement to-day in the city of Washington. The chief supporters of the movement were Mr. Shibley, myself, and Mr. R. Fulton Cutting, leading citizens of New York, and Tom L. Johnson of Cleveland, the present Mayor Gaynor, of New York, B. Everett Macey, head of one of the largest gas companies to-day on Long Island, and some few others. It was the precursor of the present bureau of recent research of New York City which has been carried 3643 on by Mr. Cutting and others recently. While I was in the work, the United States Government asked me to go to Europe to study technical education in Great Britain, and I spent the summer of 1900 in that work in Great Britain for the United States Department of Labor. The report was published in a large volume, devoted to technical education throughout Europe. I had the British portion. While there, I took occasion, in all the cities I visited, to get acquainted with the managers of public utilities,

street railways, water enterprises, electric light and gas, getting all the information I could. I was favored in this by Mr. Livey, at that time a recognized authority on gas and at present connected with one of the largest London companies. In connection with the work of the Bureau in New York, during the years 1900 and 1901, I was employed by the City of Haverhill, Massachusetts and Springfield, Massachusetts, in gas cases before the Massachusetts Gas Commission, and was the only one they did employ outside of the attorneys.

Q. What did that investigation include and cover?

A. The question of reasonable rates.

Q. What other questions were necessarily involved in that?

A. The question of their profits, the question of the reasonableness of the profits, the question of operating expenses, the value of the plant, and everything connected with it. In both cases the Commission gave a decision favorable to the city. In 1901, in the spring, Mr. Johnson was elected Mayor of Cleveland and urged me to come to help him—

Q. That was Tom L. Johnson?

A. Tom L. Johnson. I had for a few months in the early spring been at Columbus, Ohio, in an investigation of the
3644 street railways of that city, having been invited to do that by a paper, the Press-Post, at that time of Columbus, at their special request, and by Rev. Washington Gladden, an old friend of mine. Then Mayor Johnson asked me to come to Cleveland and assist, in fact take charge of representing the City's interest in the appraisal of the street railway and electric light and gas companies of Cleveland before the taxing boards, and to represent the City also in the assessment of steam railroads of the State of Ohio, because of the fact that the cities obtained a portion of the revenue of the state tax, they were interested in a proper assessment. I did that for a while, for several months, and issued a report on the subject of steam railroad assessments.

Q. With respect to these several public utilities, this investigation or examination covered and included what part of the business of the operation of these companies?

A. Those investigations very largely included a careful study of their reports, everything that the financial journals gave, and the engineering journals gave about them; and they were obliged to submit to cross examination, or examination before the taxing boards in which I sometimes helped, with regard to the valuation of their property, or improvements during the year.

Q. Covering operating expenses?

A. Yes.

Q. And cost of operating?

A. Yes, and their renewals, maintenance, depreciation, all these items had to be taken up. Then Mr. Johnson urged me to leave the Bureau in New York and take charge for him of the water department of Cleveland. He was one of the supporters of the Bureau in
3645 New York. After consulting with Mr. Cutting and others of his associates, it developed that Professor Commons had a flattering offer also, and Mr. Shibley had very important

work he wanted to do, and it seemed perhaps well for us to accept these various new fields of work and discontinue the New York office. So I went to Cleveland and took charge of the water department about the 20th of September, 1901.

Q. Now, give us a statement as to the scope of that water department, what it was and how large a field it covered, and what you did with respect to it.

A. I was in charge from September, 1901, until the end of December 1909, somewhat over eight years. The department had a physical value that was carefully appraised, not only by our own men but by a Mr. — the head of the Peoria Water Company. I have forgotten his name—who was a prominent engineer of a private water company. I recall now his name is Dabney H. Mowry, and acting in behalf of a national organization, organized to investigate municipal and private plants on a nonpartisan basis, that appraisal showed the physical property, without any allowance for anything except the investment cost was over 11 million dollars. During the time I was there we put in more miles of street mains than all the street mains of the Gas Company of Des Moines, and averaging much larger in size for we had many mains 36 and 42 inches, a good deal of 30 inch. We had occasion to build a large pumping station at a cost of over a million dollars. The contractor had failed in an attempt to give us pure water by building a tunnel nine feet interior diameter, five miles under Lake Erie, and we took hold and finished the job directly, the Water Department. The work that I took special pride in was the metering of the city.

Q. I wish you would explain that?

3646 A. Hitherto there had been no universal metering of large municipal water works in this country. From my studies of the gas question, I was convinced that it was very desirable to know accurately the measurements of all quantities sent out and used, and the result was that I undertook what was said to be an impossible job in a municipal plant, to meter everything and make it popular while you were doing it and get the support of the city council in the process. For a while there was opposition, but with the support of the Mayor during the critical period it was finally carried through to a successful determination and it became so popular that appropriations for it were given unanimously during the last few years. I put in more water meters than ever had been put in up to this time by any man in America—put in over 70,000 and reduced the per capita consumption about one half in Cleveland.

Q. That resulted in saving about one half of the water used to the consumer?

A. Yes, sir; at the same time everybody had all the water they wanted; simply the waste was stopped, and the plumbing leaks. Then I took great interest in introducing accounting reforms and helped the Mayor a great deal in the Street Railway controversy that was going on, which finally resulted in a settlement by Judge Taylor in the United States District Court. In fact I devoted a large amount of time to that work the last five years I was there. I also represented the City in the negotiations frequently carried on

as to the natural gas and artificial gas companies of Cleveland. Natural gas was introduced while I was there. I helped write the ordinance which was passed.

Q. During that nine years, or eight years, of your service with the City, how much of the field of the operations of the 3647 water plant did you personally cover?

A. I visited frequently all the branches of the work from the laying of the mains and services and meters and construction of the pumping stations; they had three stations; but I devoted my special attention to the financial results and accounting end.

Q. How much attention if any, did you give to the question of increasing the efficiency of the apparatus and the economy of operations?

A. I devoted a great deal — attention to the economy of operation and efficiency and believed that the work could be made, what I think it was recognized as being towards the close, quite on a par with any water works, public or private.

Q. Was this a municipally owned plant?

A. Yes.

Q. Belonged to the city?

A. Yes. I took special pains to seeing that it could be as well managed as the U. G. I. managed its gas works and their other plants and took a great deal of pride trying to do it. Then I had some gas investigations on yet outside of Cleveland.

Q. Tell us about that.

A. I was employed in gas cases by the cities of Saginaw, Cedar Rapids, Lincoln, Syracuse, Buffalo, in rate cases, and by Boston and New York. I did some work on a gas tax case for the city of Baltimore. I did a large amount of work for Boston and an amount of work equal to an equivalent of a year for the city of New York while I was in Cleveland during the four year controversy. I used to get a leave of absence for two or three weeks and go to New York a week or two at a time. Professor Marks and I were the only men employed continuously, first by the old State Gas Commissions, 3648 to the final preparation of the briefs for the United States Supreme Court.

Q. In these several cities which you named, leaving Boston and New York for the moment, were they all rate cases?

A. Yes.

Q. And involved what sort of investigation and examination?

A. An examination of the books of the company so far as possible; the preparation of information called for by the cities, which I generally helped prepare; furnishing such data as I thought ought to be called for; it consisted in engineering investigation so far as it could be made. I did not attempt to do a great deal of engineering work, except sometimes in the matter of the distribution system. Of course, I had accumulated more or less information on all phases.

Q. Your engineering experience, however, is entirely field work?

A. Yes; I never claimed to be a gas engineer.

Q. You claim no technical knowledge?

A. No technical knowledge, but I had a very large amount of data available as time went on. Of course the distribution system problems were very analagous to those I was handling in Cleveland.

Q. And during the Cleveland experience I suppose you had something to do with the engineering and water end during all those years?

A. I suppose there is no industrial plant like water or electric light, revenue producing plant of any large city in the country in which the head of it was so completely the monarch as I was. I ignored politics entirely; boasted that I had no politics; I didn't recognize the politics of anybody that I appointed or removed among the 900 employes. And I had to do with the general policies of the pipe-laying and constructing of the reservoirs and 3649 and the location of the improvements, more or less.

Q. And the soil?

A. The questions of where pressure needed to be improved and what should be done for it. Of course, I called for engineering reports all along the line constantly, and frequently called in experts from other cities.

Q. Now, then, barring Boston and New York for the moment, what if anything was involved in these cases in the way of ascertaining the cost of manufacture in a general way, operating expenses, and the construction cost of the property and all that sort of thing?

A. Always the attempt was made to get all that information.

Q. Now in Boston, I wish you would tell us what that work involved there, give us a good, broad description?

Mr. GUERNSEY: Let us have the date.

A. My recollection of it is it was 1905. The people of the city of Boston were paying a dollar for gas. The attempt was made to secure a reduction. The hearings were before the State Gas Commission and lasted for many weeks. There was some engineering data furnished by others and I analyzed the accounts and reports of the companies that had been made for years; that company and other plants in the state to the State Commission. It resulted in the Company claiming they could not possibly sell gas at hardly anything below a dollar, but the matter was thrown into the legislature and resulted finally in the adoption of a sliding scale under which within two years the Company was furnishing gas at the price of eighty cents, which was what we were asking for before the commission.

Q. How much is the field covered by you during that investigation, the part that you put in most of your time on?

3650 A. The time I devoted on the subject was mostly in an analysis of the reports for a great many years, not only the Boston company, but there was several companies—Dorchester, Roxbury, the old Boston company, the Bay State and two or three others, Brooklyne; they all had their own systems and reports to the State Commission, and I compared them and analyzed them in connection with the reports of the other larger Massachusetts cities, such as Lowell, Lynn, Lawrence, Fall River, Cambridge, etc.

Q. During these hearings, what if anything did you do in the way of being present and hearing the reports and testimony and evidence as to the valuation of apparatus and the distribution system and all that sort of thing?

A. Oh, yes; I was present during nearly all of the hearings and it was my duty to read all the evidence during the days I was not there. I was given an opportunity to visit all the works and plants as far as I had time to do.

Q. And examined the testimony of the engineers and other persons who placed valuations upon apparatus and so on?

A. Yes.

Q. In the New York matter, I wish you would give us more of a detail of what you did there

A. The state legislature, acting on the advice of Mr. Hughes, I think he had become Governor at the time, had passed an 80 cent gas ordinance; but the matter came up for further investigation before the State Gas Commission, and I think on their recommendations the law was going to be revised perhaps it had not been passed at all; I am not quite sure as to that. The State Gas Commission

3351 heard the testimony for three or four months and made their report. Then the law went into effect fixing absolutely

80 cent gas for private consumers, and 75 cents for city, public use. Then an injunction was issued by Judge Lacombe of the United States Court and a Master appointed to hear the testimony as to whether the rate was confiscatory or not. So the case again came up before Mr. Arthur H. Masten, who was the Master, and those hearings lasted through a good share of 1906, and part of 1907, and his report was followed by briefs and arguments by counsel before Judge Huff, who reviewed and reversed in some respects the Master's opinion, and then further briefs were prepared taking the case to the Supreme Court. I assisted in the preparation of the briefs, the facts of the case, but all the work previously had consisted in attending the hearing and testifying for twelve or fourteen days on the witness stand and in studying the testimony and getting all the data available on the cost of construction and operation and comparing with the other gas companies, New York, Brooklyn, Boston, Chicago, and wherever data could be secured. Very much as had been done in the other cases.

Q. During that time were you in touch with the men who were making up the inventory of the property and the physical valuation of the property?

A. Yes.

Q. And heard their testimony?

A. Yes.

Q. And read it?

A. Yes.

Q. Analyzed it?

A. Yes.

Q. Now, down to the end of your service at Cleveland—

3652 A. There is one matter I omitted. I might say, I probably omitted several cities with which I have been identified. I

recall for example, I was engaged by Montreal to make a report on municipal gas works; they had some idea of establishing, which they never did.

Q. Did you put in some time in making that report?

A. Yes.

Q. What did your report include?

A. It covered the items of cost, both construction and operation; but the conditions were very difficult in Montreal, for the reason that the pipe had to be buried very deep on account of frost and there was rock there.

Q. To make up the report for the city of Montreal, what if anything did you do for the purpose of informing yourself, in addition to the general information that you had secured from all these former hearings?

A. Applying the unit costs to holders I thought necessary; to the coal gas and water gas plants; to the sizes of the mains; to the meters and services which I had thought necessary to cover the entire city.

Q. From what sources did you get all this information, that is the information that you thought was sufficient upon which you were willing to rest your judgment and make a report?

A. I got it from the accumulated data in the many cases I had been in, not only that, but I had access to all the data filed from time to time by every gas company in Massachusetts with the State Gas Commission. Whenever they wanted to issue stock or bonds they would have to put in all the extensions they made.

Q. Is that information helpful?

3653 A. Very helpful. Of course I had no data with conditions as they were in Montreal and I made a large allowance.

Q. Of course, I assume there were some conditions involved in Montreal that were local and peculiar to that place?

A. Yes.

Q. What if any examination and investigation did you make?

A. I visited the city and had a long conference with the city engineer, went over the territory some with one or two other engineers connected with the city, so as to get all the data I possibly could and the character of the soil and the conditions of the city generally.

Q. And the cost of labor and material?

A. Yes.

Q. And the character of the country or city in which the plant was?

A. I also paid a good deal of attention to the character of the administration, how efficiently or inefficiently they were doing their lines of work.

Q. In other words, you covered the entire field you thought necessary to make up an intelligent report for the purpose of advising the city as to whether or not it should go into the enterprise?

A. Yes. Then during the same period the National Civic Federation desired to have an investigation of the relative conditions of

municipal and private management of all public utilities in this country and Great Britain—

Q. What National Civic League was that?

A. The National Civic Federation of which Senator Hanna for a long time was president and Seth Lowe and I think August Belmont was president at the time this work was undertaken. The Secretary of it was Mr. Easley, formerly of Kansas, and for many years in Chicago and New York. A large fund was raised, about \$100,000 for the investigation and a committee of about twenty-one members—

Q. I wish you would name the committee?

A. It was some time ago and I shall probably omit many, but Mr. Ingalls, President of the Big Four Railroad, was head of the Commission. Mr. Walton Clark of the United Gas Improvement Company was a member; Mr. Eggar, President of the Boston Edison Electric Light Company; another Mr. Clark, William G., I think; John Ferran, Sales Agent of the General Electric at that time—I am not sure what position he holds now; Professor John R. Commons, I mentioned before, of the University of Wisconsin at present; Professor John H. Gray, of the University of Minnesota.

Q. Was Lewis Lilley on the committee?

A. No. And Professor Goodnough of Columbia University.

Q. Marwick Mitchell?

A. No. There were four or five men connected with labor organizations on the committee.

Q. You were a member of the committee?

A. I was a member of the committee. Then there was Mr. Winchester, head of the Municipal Electric Light plant of South Norwalk, Connecticut. A sub-committee was formed by the full committee, of five members.

Q. Who were they?

A. Mr. Walton Clark, Professor Goodnough, Dr. Milo Maltby, now one of the members of the Public Service Commission of New York City, First District, they call it; and a labor member, Sullivan, and myself, and we constituted the committee until at one time through some illness of one of the members, I believe Mr. Edgar for a while was on the committee. We were the executive committee that carried on the investigation and employed the experts.

Q. What was the investigation; what did you do?

A. We had an engineer connected with private plants and an engineer connected with the municipal plants to go together and investigate the character of municipal gas works and private gas works, selected ones in this country; the same of electric light, and the same of water. We did not touch street railways in this country. In Great Britain we did include street railways, but did not include water; we included street railways, gas and electric light. We also agreed on an accountant. Marwick-Mitchell & Company was employed to do all the accounting in this country. In Great Britain another firm was employed and other engineers in Great Britain avoid expense. We had appraisals made of properties and we went

into their accounts fully and made an exhaustive report in over three volumes. After the general report of only two or three pages was adopted by a vote of about 20 to 1, then the evidence was summed up more fully from the municipal side and private side by five men—Maltby, Parsons and myself summarized the public side and Mr. Walton Clark and Mr. Edgar, and I think somebody else some of the time assisting, summarized on the private side. I should have stated, on this commission was Mr. Walter Fisher of Chicago, very prominent, now Secretary of the Interior. He did not go to Europe with us but took a very active part in all the meetings in this country. There were fifteen of the twenty-one of us went to Europe.

Q. How long were you over there?

A. About three months.

Q. What did you do, if anything, in the way of personally going over the field with the experts?

3656 A. We did that in this country and Europe. We visited every plant together as a commission, and the sub-committee of five made visits that the general committee did not make, constantly studying the work.

Q. The report of that work is bound in three volumes, and what is it called?

A. I forget the exact title, but it is probably called Public Utilities or Municipal Ownership or something like that, of the Investigation by the National Civic Federation.

Q. Is that the three volumes I have here on the table a week or so ago?

A. I think you got that from Mr. Hall, perhaps.

Q. Now, have you had any other employment covering this same field that you can now think of and have not mentioned, if so, I would be glad for you to do so before we start on this plant?

A. Perhaps I should say that in December, 1909, when Mr. Gaynor was elected Mayor of New York, whom I had known for some years, he wanted me to come to New York to put in effect the same policies in the Water Department I had carried out in Cleveland. I understood this to mean movement towards the universal metering and having meters and services put it and owned by the city, with city labor, and introducing other economies, and accounting methods and so on. I went to New York with that idea and found very soon great antagonism in the department and outside of it; the meters all privately owned; they were soldered into place; they had not been tested since they were put in; many of them had been in twenty or thirty years; they were all put in and repaired by private plumbers at enormous charges, and in general matters were about in as
3657 chaotic a state as possible; prices for meters generally were so high, about two-thirds more than any individual could buy a meter for in any other city in the United States. I started in to change that and we was making considerable progress, despite the opposition, until the Mayor was shot. Then my support was falling off. The interests that didn't like this work insisted on my leaving, and I did not care to resign and insisted I would not resign unless I

could first see the Mayor and I thought I would be able to as he was gradually gaining in strength.

Q. Now, next after that, did you have some further employment with some large cities?

A. Yes, I left the department then at the end of October, 1910.

Q. In New York City?

A. Yes, I was Deputy Commissioner of the Department of Water Supply, gas and electricity. Then after leaving the Department at the close of October, I did considerable writing for engineering journals and was engaged by the City of Toledo to take charge, represent the City in the entire charge of the appraisal of the street railways of Toledo, and began work on it. But the company insisted that they had no objection to my representing the city but they thought there should be a third man chosen as an arbitrator and the city refused to do that at first, but finally insisted that all questions of dispute should be threshed out between the Mayor and President Lange of the street Railway, as it had been in Cleveland between the Mayor and the President of the Street Railway Company there. Finally, however, the City said that they would recommend Judge Killis of the United States District Court, living at Toledo, as the third arbitrator. The Company said, no there must be a street rail-
3658 way expert, and the case has hung fire ever since, the City refusing to go on. I was engaged in Chicago about the same time to investigate the Peoples Gas Light & Coke Company with respect to what should be a reasonable price for gas.

Q. That is still on?

A. Yes, I made a report, and the council took action following very largely the recommendations of the report, and then it was taken into court and is still pending.

Q. That is the ordinance by which the price of gas was fixed at 75 cents for the first two years?

A. 75 cents for the first year and 70 cents for the next two years and 68 cents for the last two of the five years. Following that report I was engaged to take charge for the City of Chicago of a report, telephone reports, which I am engaged in now.

Q. That you are at work on now?

A. Yes.

Q. That Chicago gas situation, as I understand it, the Gas Company now is furnishing gas under the order of Judge Gibbons at 80 cents?

A. Yes.

Q. The price before the passage of the ordinance based to some extent on your report was how much?

A. 85 cents. I forgot to say when that price was fixed five years before, in 1906, or December 1905, and January 1906, I was called in by the City and advised with it in regard to the matter at the special request of Mayor Dunne. The price was a dollar at that time and was reduced to 85 cents.

Q. There was an abrupt reduction of 15 cents?

A. Yes; the council was considering a larger reduction. 3659 The Company has some claims against the City for lights, I believe furnished for the streets, etc., which had been a large question of litigation for some time, and other questions were at issue. Finally a compromise was reached by which the whole matter was settled and for five years the price fixed at 85 cents.

Q. When did that five year period expire?

A. It expired, as I recall, about the middle or some time in the spring of this year.

Q. Anyway, before the passage of this last ordinance?

A. Yes, either the spring of this year or some time near the latter part of last year.

Q. Did you have anything to do with the adjustment of the traction difficulties in Chicago?

A. No, I was not engaged on that.

Q. And this work that involved the charge of the Chicago Peoples Gas Light & Coke Company, was your field about the same for your investigation and examination, about the same as in these other cities you have already told about, or was it limited?

A. It was far more limited, because I had not access to the books and records of the company. But I have at various times had Occasion to go quite fully into certain phases of the financial history of the Chicago companies, running back to the first gas company in 1894, following the various sworn statements they made from time to time in the courts and other places in connection with litigation and reports made public and to their own stockholders, etc.

Q. In all these years you covered so far in your testimony have you devoted any time to the examination and investigation of financial matters that involved the selling prices and quoting prices of bonds, stock and other securities?

3660 A. Yes, I have had occasion to devote a great deal of attention to that.

Q. In a general way, tell us about your experience?

A. I have had occasion to follow the weekly quotations and daily, and more often though weekly and monthly summaries in the Commercial and Financial Chronicle of New York for the last 25 years; perhaps more fully the last 15 years.

Q. How broad a field does that Chronicle cover?

A. It covers all the securities listed in any big stock exchanges of the country. Also includes reports of the companies and listings of the stocks for exchange wherever they have to make sworn statements of that condition. I did not mean to confine my suggestion of sources to that alone. Of course there is a great deal which appears in the technical gas journals.

Q. Have you devoted some time and attention to those?

A. Yes.

Q. How much?

A. I tried to keep in touch with the Progressive Age particularly, which I have taken for twenty years or more, since way back in 1890, and I get a good many English reports every month.

Q. How old are you, Professor?

A. I was fifty-one last April.

Q. Now, in your work, what do you have to say, as to whether you have devoted time and attention to informing yourself right along as to the prices of the materials and apparatus, etc. that is involved in and used by these public service corporations you have been testifying about?

A. I have devoted a good deal of attention to gathering such data. I have not used very much of it, however, in my report, as that was being covered in other ways and I have not had time to
3661 utilize most of it.

Q. Now, you know something about the Des Moines Gas plant?

A. Yes.

Q. As I understand you up to this point in your testimony, your first acquaintance with the property, or part of it was in 1892?

A. Yes.

Q. Now, at that time, did you have occasion to examine the statements of the officers of the Company as to valuation investment and operating costs and so on?

A. Yes.

Q. And did you hear any evidence or testimony that was given in that case?

A. I heard a little of it, I believe, and I have read all of it since I came here.

Q. Then your next acquaintance with the gas plant here, if I understand your testimony up to date, was in 1894?

A. The hearings were in 1894 or 1895; I thought most of them were in 1895, in the spring.

Q. Anyhow, in 1894 or '95.

A. Yes. It was in connection with that case that I have read more evidence than in connection with the 1892 case. I find very little now bearing on the 1892 case on the flood below, except a few affidavits.

Q. Was Mr. Walton Clark a witness in one of those cases?

A. Yes, he was in the 1892 case and the 1895 case too.

Q. And Col. E. C. Pratt?

A. I think he was in both cases.

Q. Mr. Lewis Lilley?

A. He was in the second case; whether he was in the 1892
3662 case, I don't know.

Q. Have you devoted some time and attention to the Des Moines gas plant recently?

A. I have, yes.

Q. When were you first interviewed with respect to any employment that involved the Des Moines gas plant and by whom?

A. A letter came to me in New York, I think from Mr. Brennan, the first I heard there was a case, I think it was early in the year.

Q. Early what year?

A. Early this year, asking me if I would help or come out and serve the city in the case.

Q. And when did you first respond with your presence here, if you did respond in that way to that letter?

A. Well, the testimony had been going on about a week or two, I should think, somewhere in the neighborhood of the 20th of July perhaps. As soon as I could get away from the Chicago case I came here.

Q. Was that your first visit to Des Moines following your experience here in 1892 and 1894?

A. Yes.

Q. You think it was about the 20th of July?

A. I think it was.

Q. You say some testimony had been taken when you came here?

A. Yes.

Q. Anything other than the testimony covering the real estate?

A. Very little. I know that neither Mr. Lea nor Mr. Baehr, nor Randolph had testified, but I think Mr. Haines had testified and some experts on real estate. Mr. Moul, I think, was on the witness stand when I came into court.

Q. Mr. Moul was one of the men at the works, either foreman or in charge of some department at the works?

A. I won't undertake to say what his position is.

Q. He was testifying about the distribution system?

A. Yes.

Q. Were you present during the taking of the testimony of Mr. Lea, Mr. Baehr, Mr. Hagenah and Mr. Randolph?

A. Yes, during nearly all of it, not perhaps every day, but nearly every day.

Q. I wish you would tell the Master in your own way just what efforts you made to inform yourself and qualify yourself to testify with respect to the operations of the Des Moines gas plant and cost of its property and the price at which gas can be manufactured here in Des Moines and delivered to the consumer, and so on; state in a general way how you have covered the field since the 20th of July, without going into the report?

A. Aside from one visit to the works to get some general idea of the situation there and following some studies I had made of the inventory, blue prints and maps, and aside from several trips around the city getting the lay of the land, I devoted most of my time to a study of the exhibits and testimony and gathering further data that I thought illustrative of the situation here.

Q. Now, you referred to the inventory, that document has been marked in this case Complainant's Exhibit 15, did you look that over?

A. Yes.

Q. Who had it when you first examined it?

A. I did not look it over with the care that I looked over and specially studied the summary that Mr. Lea and Mr. Baehr used in their evidence.

3664 Q. But you did look it over?

A. Oh, yes.

Q. And Exhibit 15, was the part of the inventory that covered the

items of property and there is another exhibit, Exhibit 16 which contains certain sheets and photographs and other information with respect to the plant?

A. Yes.

Q. Now in looking over the inventory as it was prepared by the complainant, did you observe anything about it that indicated any unusual situation with respect to any part of the property? What I mean by that, whether there was anything about the inventory that indicated different conditions here with respect to the gas property than is observable generally in gas properties of this character and towns of this size?

A. No, the only thing I specially missed in it was any attempt to inventory the Valley Junction property; but aside from that I did not see anything in the inventory that I thought at all out of the ordinary.

Q. You did, however, did you not, observe either from the inventory or some other papers or records you found that the Des Moines plant was serving a plant outside of the city?

A. Yes, that was in the testimony.

Q. Aside from that, there was nothing that indicated it was necessary to make any special study of the apparatus or works or distribution system or anything of that kind?

A. That is right. There appeared to be no dispute in regard to the inventory and no particular controversy as to its omitting anything and it was a pretty complete and good inventory.

Q. There was nothing about Exhibit 16, the maps and
3665 sketches and photographs that indicated any unusual or extraordinary conditions with respect to soil or the lay of the land or any thing of that kind?

A. No, I watched particularly the testimony and exhibits and other data to see whether there were exceptional difficulties in laying mains here or foundations for buildings and I didn't discover there were.

Q. Now, in addition to the examination that you made of the inventory as furnished by the Company, I wish you would state in a general way now how you devoted your time since with respect to the record in order to inform yourself fully as to the situation?

A. Why, I have made special study, first of the exhibits and of the testimony, and then I have studied the stock and bond quotations I refer to in my report. Also the Massachusetts experience of several cities seemed to be comparable in a measure with the situation here, and have drawn on my previous studies. I may say I have neglected one line of investigation which I forgot to mention and that is, the study of the rate decisions and rulings of commissions and courts on rate cases. Of course, I have not been admitted to the bar, but have had occasion during the last fifteen years to follow up the studies of constitutional law, or at least constitutional history in its various forms and to go right into the decisions and rate case decisions. I suppose I have read most of those decisions, both with respect to steam railroads and municipal utilities for a good many years.

Q. What have you done—for instance, we will start with Mr. Lea's testimony and Mr. Lea's report—have you examined or thoroughly analyzed it?

3666 A. Yes.

Q. What have you done in the way of reading what testimony has been given here that you did not hear from the witness?

A. I have endeavored to do that and I think I have done so, except perhaps the last two days I have been so busy I have not read much or known much of what has occurred; other than that I have kept pretty well posted.

Q. The testimony largely the last few days of the hearing was given by Mr. Sangster and covered the details that were furnished to Mr. Hall for the purpose of making up his tabulation and report. Now, Mr. Baehr, have you analyzed his report and read his testimony?

A. Yes.

Q. Examined the tables and schedules furnished by him?

A. Yes.

Q. And Mr. Randolph's?

A. Yes.

Q. Gone over his testimony carefully?

A. Yes.

Q. And his report carefully?

A. Yes.

Q. Examined all the tables and schedules and comparisons that were made?

A. Yes.

Q. And Mr. Hagenah, have you gone over his work carefully?

A. Yes.

Q. And informed yourself with respect to the theory upon which his conclusions were worked out and finally reduced to typewriting?

A. Yes.

Q. And the same is true as to Mr. Baehr's and Lea's theory
3667 of arriving at valuations, have you gone over that carefully?

A. Yes; and I know Mr. Alvord very well and talked with him in months past; he has been called the parrot of the theory of going value sometimes.

Q. He is not in this case.

A. No.

Q. I am referring particularly to the men who have appeared here. What have you done to inform yourself of the prices of material so far as possible?

A. I have tried to inform myself to some extent on that, more particularly with regard to the distribution system.

Q. Which involved the cast iron pipe, the laying and ditching and specials?

A. Yes.

Q. And the paving question and all that sort of thing?

A. Yes, but I have not studied the paving very carefully.

Q. What have you done, if anything, in the way of going over the records and books of the Company, either in their original form or abstracts from them or reports made up from the books?

A. I have specially interested myself in that; everything in Mr. Hall's exhibits and testimony for example, and wherever data was given by the witnesses for the Company on these lines, I followed them.

Q. Have you fully informed yourself as to the facts that are set out in Mr. Hall's report?

A. Well, I have not gone back of his report to the vouchers at all, but I have assumed that his report was correct.

Q. You examined the report carefully?

A. Yes.

Q. And checked it up?

3668 A. Yes.

Q. Now at any time since you came here have you made an investigation to ascertain just the beginning of the Des Moines Gas plant, that is, how it was acquired first by the old Des Moines Gas Company?

A. Yes.

Q. And where did you find the information with respect to that?

A. In the testimony by the witnesses for the Company in 1895, and particularly by Mr. Lilley the accountant of the Company, and now I believe secretary.

Q. What was he then?

A. He said at that time he was employed by the United Gas Improvement Company to come out here and spend a few weeks studying their accounts and history for the purpose of testifying.

Q. That is, he was an accountant?

A. Yes.

Q. You said he was now secretary, I think he is treasurer?

A. Treasurer, yes.

Q. Did you find from an examination of the records here anywhere just how this property came into the possession of the old Des Moines Gas Company?

A. Yes, and I should have added to the answer to your previous question, from the testimony also of Mr. Pratt at the same time.

Q. Col. E. G. Pratt?

A. And other witnesses, Mr. Clark.

Q. How did you find the property was acquired in the first place?

Objected to on part of the complainant as being hearsay, secondary and incompetent. The copies of the testimony of these witnesses themselves would not be competent in this case and much less are the inferences drawn by witness from the copies of this testimony.

3669 A. It was bought, according to Mr. Lilly, at sheriff's sale for about \$38,000 in about 1876, a little before the first closing of the books of the Capital City Gas Light Company, January 26, 1878.

Q. Did you get that information when you were here before also or at this time?

A. I don't remember whether I did before or not.

Q. That purchase at \$38,000 at sheriff's sale as you found it from the examination of the records was just preceding the closing of the books in the year 1878?

A. The year ending January 26, 1878.

Q. Have you so far as it was possible for you to do in the time followed the history of the Company from that time down to this and noted the transfers and changes in at least the name of the owner?

A. Yes.

Q. How much time have you devoted to this work, Professor?

A. When I have been in the city, all my time. When I was in Chicago probably half of my time during the interim here of a couple of weeks.

Q. How much of the time during the early part of this trial, in the long ago, were you in touch with Professor Marks while he was making up his report of the valuation of the physical property?

A. I had not seen him or had no information about his work during the weeks that he was here, three or four weeks, or all the time in fact that he was here prior to my arrival about the 20th of July, or thereabouts.

Q. When did you first have an opportunity to examine Professor Marks' report?

3670 A. When he had reached his total of \$1,700,000 he called me into his room and he said he had something interesting he wanted to show me and he showed me that table just in the form it appears on page 75 of his report; that portion of the page which contains two columns of figures, but I never did see or care to see or had time to see his detailed appraisals until after he had begun to testify.

Q. Then you were furnished with a complete copy of his report and what do you have to say as to what you have done in the way of studying that report carefully and verifying it in so far as it was possible, his conclusions?

A. I have heard all the testimony I think that he gave, both direct and cross, except possibly the last day and that I read and I went through his exhibits more or less, and I have had occasion to refer to it a few times in connection with the report that is here.

Q. And after the report was delivered to you and you had an opportunity to examine it, what if any talk did you have with professor Marks during the days that he was being examined, and other witnesses being examined, with respect to prices of materials and labor as he had worked them out here?

A. I don't remember any concrete figures. I asked him how he had secured his figures of prices.

Q. That is what I wanted to know. You were informed with respect to the manner in which he ascertained the information in regard to local prices?

A. Yes, I particularly asked him about that, and in a measure he told me, but I do not suppose he told me some things he did on the witness stand afterwards.

3671 Complainant moves to strike the answer as being hearsay and incompetent.

Mr. BYERS: Yes, that may go out.

Q. Now, Professor Bemis, during the time that you have been going over the situation here at Des Moines, I wish you would state

what your purpose was in all the work that you have carried on here, what you were trying to ascertain?

A. What the facts were as closely as I could learn them, as to the cost of investment, the cost of duplication on the basis of recent extensions, of the earnings, the questions raised in the trial, the depreciation, the overhead charges, going value, etc.

Q. Investment value?

A. Yes.

Q. Investment in the property and business?

A. Yes, land and paving, duplication, costs.

Q. And for the purpose of finally determining what question, in so far as it was possible to do?

A. Determining the probable effect of the ordinance passed last December.

Q. Reducing the price of gas to 90 cents?

A. Yes.

At this time an adjournment was taken until 1:30 P. M.

3672

1:30 P. M., WEDNESDAY, *September 20, 1911.*

EDWARD W. BEMIS being continued on direct examination by Hon. H. W. Byers, testified as follows:

Q. Prof. Bemis have you reduced your calculations and findings to writing?

A. Yes, sir.

Q. What do you say as to whether or not you have made up a complete report covering the investigation of the matters about which you have been so far interrogated?

A. So far as I have had time to do.

Q. Do you have a copy of your report and conclusions?

A. Yes, sir.

Q. I wish you would hand the original copy to the reporter and have him mark it as defendant's exhibit No. 43.

(Report here marked defendant's Exhibit No. 43.)

Q. I wish you would state first in a general way the several heads or subheads you use in making up your report?

A. Well as shown by the index at the beginning. I take up the cost of the property first. The amounts that should be allowed for depreciation. The net investment after deducting the depreciation. The working capital. The amount inclusive of the working capital. I discuss the question of overhead charges, discount on bonds, rise in the value of the land, the question of paving over the mains. The question of going value and claims for appreciation, then the matter of operations, the cost of reconstruction as shown by the books, the investment theory versus the question of duplication and the
3673 facts as shown by the books of the company, by the books of the company and by Prof. Marks' testimony. Then I take up the question of operating expenses, manufacturing or in the holder, putting gas in the holder, the question then of leakage in connection with it or unaccounted for gas, then the other operating

expenses such as distribution and general new business, etc., donations, bad debts and the question of increased cost of collection by virtue of not having any penalty, the rate litigation expense and what should be done with it, taxes, the abnormal character of the operating expenses, particularly distribution and general in 1910 indicating that it is fairer to take the previous four or five or six years. Profits at 90 cents, what they would be on a basis that I use in the previous part of the report, what rate of return is necessary to secure stocks and bonds at part in a city situated like Des Moines, Prospects of future growth and the bearing of these prospects on costs and profits. Finally gives some experience from Massachusetts relative to some of these points.

Q. Now taking this exhibit up more in detail, beginning with your report on page 6, I wish you would cover the matter that is included in page- 6 and 7, as briefly as you can and still give a fair explanation of it?

A. One method of determining the cost of the property I thought to be the cost to the present company, the Des Moines Gas Company, as shown by what they paid for it March 1, 1906, together with increase of surplus since then.

Q. How did you work that out?

A. The evidence shows—

Mr. GUERNSEY: We object to this testimony in the first place as irrelevant, immaterial because value and not cost is the material question and next because it is purely argumentative and quoting from the testimony of other witnesses and not the expression of any opinion or statement of any fact by this witness, but as an argument under oath.

Q. Go ahead Professor.

A. It shows that the Des Moines Gas Company on the first of March 1906 assumed outstanding bonds of \$400,000 of the Capital City Gas Company and a debt of \$240,000 to the parent company, the United Gas Improvement Company for property in the city of Des Moines, and also a debt of \$45,000 for property at Valley Junction. Aside from the holder and the amount at Valley Junction the bonds were \$640,000, these were five per cent bonds, then there were preferred stock contracts of \$800,000 paying six per cent which were issued at the time of purchase by the Des Moines Gas Company and that total of the two is \$1,440,000 of interest bearing securities. Then the \$2,250,000 common stock issued but that has never paid a dividend and the stock that it displaced \$600,000 of the Capital City Gas Company had paid very little in the line of dividends, consequently it is right to say that the payment that was really made was represented entirely it seemed to me by the interest bearing securities, bonds and preferred stock contracts. Now beginning with March 1, 1906, with \$1,440,000 that was paid for the property there has been since in extensions \$484,000 odd dollars, according to Mr. Hall's or defendant's Exhibit 30, page 21. This brings the total present cost of the property to the Des Moines Gas Company practically \$1,925,000, less the depreciation of say \$75,000 since the purchase of the property five years ago.

Q. Do you explain that item just at that point how you arrived at the \$75,000?

3675 A. It is based on an amount substantially that I find it necessary in my later computations to put into a sinking fund covering three years.

Q. To take care of the depreciation of the property?

A. Yes. So that leaves in round numbers \$1,850,000 as the cost of the property to the present company. That I do not accept as my theory as the value of the property, but it would appear to have been the view taken at the time by the Des Moines Gas Co.

Complainant moves to strike out the last statement commencing it would appear as a mere conclusion and incompetent on that account and also as contrary to the record that as a matter of fact has been introduced.

A. That I would have to take as to this \$1,925,000 before the deduction of the \$75,000 represents the securities as shown by the books as abstracted by Mr. Hall.

Objected to because it is not competent for one witness to testify as to the testimony of another witness, the testimony of the second witness being predicated upon some books of account that is as to the contents of the books.

A. From both the data introduced by Mr. Hall and also introduced by Mr. Hagenah I discover no conflict with regard to these figures. Apparently the only question I can see at issue would be whether that stock was supposed to represent any value, the common stock or non dividend securities.

Q. Now if you will, proceed and explain anything further that you care to with respect to these two pages.

A. I think that has been covered sufficiently.

Q. Now page 8 gives what plan?

A. I have divided that into four periods, the first preceding the year 1876, the second from that time until December 31, 3676 1894, third from that time until the change of the nominal ownership February 28th or March first as you may call it, 1906, the fourth period from March 1st, 1906, until the close of 1910. I see in my copy, I don't know whether it is just this one that it is until December 1, it should be of course December 31, 1910. If it is December 1st, it should be changed to December 31st, 1910.

Q. Go right ahead and explain how you arrive at that conclusion.

Mr. GUERNSEY: I want to object to the testimony set out commencing with the words "with respect to the first period which the witness is about to read, and which purports to be copies quoted from the testimony of witnesses in some other suit to which the complainant was not a party or to the statements of the results of the testimony there as being evidently incompetent as hearsay and secondary.

Q. Go ahead, I don't care to have you state anything more than is necessary to make your explanation clear.

COURT: Let it be understood that these objections apply to each and all testimony and each and every part thereof with the same force and effect as though made at the time.

Mr. GUERNSEY: I have no objection to that, of course we will have other objections to other parts of the testimony.

A. For the period prior to 1876 I have no evidence except the testimony of Mr. Lewis Lilley, the accountant of the United Gas Improvement Company at that time, now its treasurer, who testified under oath in 1895 as quoted here in substance that the property was brought at Sheriff's sale by the Capital City Gas Light Company for \$38,828.36, a little before 1878. He testified that the first closing of the books was on January 26, 1878, and at that time the purchase had been made only a short time so the first period contains merely that reference to that purchase.

3677 Q. The second period, how did you work that out?

A. The second period from the time of that purchase until the close of 1894 is again based upon the testimony of Mr. Lilley where he again refers to this \$38,828.36. I see one copy is \$39,000 it should be thirty eight in that second reference to it near the bottom of the page, Commencing with that purchase Mr. Lilley and Mr. Pratt give the amount that went into the property from that time until the close of 1894. They reach a figure given on page 10 of \$466,532.93 as the total amount that had gone into the plant in cash by the close of 1894. They also refer to about \$200,000 a little over that, that went into the plant in the shape of electric light property and water gas patents, or gas patents, I don't know as they were all water gas. Mr. Pratt as shown on page 11 considered that the amount of \$449,500.77 up to the close of 1891 was a fair and reasonable presentation of the cost of the property having reference to the time at which the investment appeared to have been made according to the books as quoted and then he went on and gave the corresponding cash investment for December 1, 1894, as \$466,532.93, the same figure that Mr. Lilley had used for December 31, 1894.

Q. Now you take that do you, as the figure for that period.

A. Yes. On my next page 12, I refer more fully to what I was just mentioning about the total investment, December 31, 1894, of 681,000 odd dollars and Mr. Pratt's statement that \$215,000 of it was made up as shown in this table. He again refers to the cash investment as \$466,532.93 of which the material and supplies was \$11,559.49 and cash and bills payable \$25,546.61. This left as the plant account for the gas business, aside from the electric light \$429,426.83. That is the figure Mr. Hall started with.

3678 Q. That is the figure you took for the figure covered?

A. Yes. Now in connection with that that affidavit of Mr. Pratt there are two long sheets and wide sheets purporting to be copied from the Auditor's statements of the company, giving the investment for each year since 1877 and under each item, fifty or seventy five items covering two pages, showing investment each year under each item. There are five or six items marked with a red cross in several columns and in the right hand which is similar

to these items here, the ones given here on page 12. Mr. Pratt in his affidavit said the cash investment consisted of \$681,000 less the items marked with the red cross representing as he stated the exact figure which I use here and the statements that appear opposite figures on page 12 are quoted from that Auditor's sheet.

Q. The third period from January 1, 1895 to March 1, 1906, how do you get that period, how do you work it out?

A. Perhaps I should add before leaving the previous page that the reason it seems to have appeared in the mind of Mr. Pratt—

Complainant objects to the statement of the reason that appearing in the mind of somebody else eighteen years ago by the witness as incompetent on any theory whatever.

Q. What is it you want to state?

A. The facts was that it was stated—

Objected to as a conclusion and quotation of the testimony of somebody else.

A. It showed this \$172,096.94 was part of the payment of \$200,000 in bonds to the United Gas Improvement Company by the Capital Gas Light Company for water gas apparatus and patents. It was stated that \$27,903.06 was for the water gas apparatus and \$172,096.94 was for patents. It was a payment to the parent 3679 company by the Capital City.

Q. Now the next period?

A. That runs from January 1, 1895 to the sale to the Des Moines Gas Company February 28, 1906. During that time the new construction was \$648,760.90 as shown in defendant's exhibit No. 30. The books of the company agreeing with this except that they show a writing up of the value of the property without any corresponding new construction of \$131,744.44 on May 1, 1897, as explained on page 30 of defendant's Exhibit No. 30, and in defendant's Exhibit 35. A little was written off during that time I might say for depreciation, except what they wrote off in connection with repairs and renewals, charge operating expense.

Q. Your information with respect to that you got from the testimony here and Mr. Hall's report.

A. From the testimony of Mr. Hagenah and others and the testimony of Mr. Hall, Exhibits and testimony.

Q. The period March 1, 1906, to December 31, 1910, give us your analysis of that period.

A. During that time the books of the company in Des Moines show an expenditure of \$529,487.94 for construction including \$45,000 in Valley Junction and my calculations and additional amount of \$120,000 not reported on the books of the company here to pay for the new holder, the 1,132,000 feet capacity.

Q. You include that?

A. I include that although I have been unable to find any testimony from anyone connected with the company that they knew of its costing that amount and seems to me that vouchers should be produced. Now as to the \$120,000 which has been accepted and

is given in this statement as having cost fully that much. The holder, however, appears in the inventory as having been 3680 built in 1903.

Q. That is the holder for which this \$120,000 was allowed by Mr. Hall?

A. Yes, sir.

Q. Seems to have been built in 1903?

A. It is so stated in the inventory. It is also so stated in Mr. Hall's exhibit, but it did not come into the testimony directly except in connection with the transfer March 1, 1906, Mr. Hall put it in at that place. I have probably done so in this report but in my thought of it since I wrote those pages I have felt it should go in in 1903 and 1904, if that were done it would very greatly change the diagram of Mr. Hall with reference to the relation of net investment to earnings. There would not be as big a peak or jump of net investment relative to earnings March 1, 1906.

Q. In other words as Mr. Hall shows that item in his report it is more advantageous to the company.

A. It shows a greater irregularity and fluctuation of the ratio between earnings and investment than I believe would be shown if this were placed between the three previous years when according to the inventory it was constructed.

Q. But you have treated it as in at the time Mr. Hall put it in?

A. Yes. Now there are two items appearing on the books of the company as construction during this period which are excluded. One is bond discount of \$33,950.00 and the other reorganization expense of \$6,922.82.

Q. Why did you exclude those?

A. I excluded the bond discount because in the case of a company in a city of this size either the present company or a 3681 new company starting in with a practical monopoly bond or stock discount for that matter has nothing to it but a function of the rate of return. In other words whether your bonds shall have a discount or not does not depend at all on the cost of construction, depends only on what rate you are willing to pay for your bonds. A five per cent bond at 85 or 90 has a discount while the same bond at six per cent would not have any. The question has got to be taken into account, but I think the place to take it in- account is on the rate of return. It is perhaps a little better to have a low interest bond even at a discount, rather than a bond a little higher rate at par. I — refer to that again later.

Q. Another item you took out here is re-organization expense, why do you think that should go out?

A. It does not seem to me that that enters into the cost of the property, only a transfer and whatever organization expense had been met in the plant first had been carried into construction account if the books had been properly kept previously, and if you would put it in the account now you would be duplicating the item unless you assume that the mer- cost of transfer should be charged up. It does not seem to me, however, that the mere transfer of

ownership from one company to another, both owned by the same parent company should mean an increase of capital account.

Q. As I understand this situation it was a mere change of the name of the company so far as the real ownership of the property was concerned?

A. Yes, sir.

Q. Where you say here both being entirely owned by a third company I wish you would explain that?

A. The testimony shows, states positively that all the
3682 stock of the Capital City Gas Light Company was owned by the United Gas Improvement Company and the same is true of the Des Moines Gas Co.

Q. That among other things is the reason you exclude—you may state whether that is one of the reasons why you exclude that item?

A. It is.

Q. And is there any other or further reason now you think of?

A. I question whether it should be included in any event. The courts have frequently ruled—

Complainants object to the witness testifying as to the rulings of courts as incompetent and argumentative.

A. That when one company buys out another and pays for franchise that franchise can't be capitalized for the fixing of rates and if a payment for franchise cannot be capitalized I don't see why a payment in a mere organization transfer expense can be.

Complainant moves to strike out the answer as argumentative.

Q. What is your judgment about the item as to whether or not it should be included?

A. It should not be.

Q. On page 15, under the subhead summary of construction cost I wish you would go through that table on page 16 and explain it.

A. Page 15 merely gives a combination of what has been given before, combines what has been given before in the introduction to the table on the next page and explains how the table does give that.

Q. Go over the table briefly and explain it.

A. The chief point brought out on page 15 is that \$25,000
3683 known in the early accounts as old gas works, \$25,000 out of \$38,000 as old gas works consisted principally more of mains and services than old gas plant, but was retained on page 16 under total to works and has been so classified.

Q. What difference does it make in the final outcome?

A. Does not make any practical difference. A little difference in apportionment is all. On page 16 I place in the first column the amount that the books show had been put into the property as a cash investment prior to 1895, in other words how the \$429,426.83 was apportioned. I might say that first column is the testimony of Mr. Pratt and Mr. Lilley.

Q. Taken from Mr. Pratt's statement?

A. Yes. The next column is taken from Mr. Hall's testimony shows the apportionment from January 1, 1895, to the sale February 28, 1906. The third column the subsequent period and the last column combines it all into the total of \$1,727,675.67 which is construction cost at the close of December 1910, aside from working capital and without any allowance for depreciation or for appreciation and that is not in the cost item, that would be in another form.

Q. Now page 17, I wish you would enlighten us as to the matters shown on that page as far as you deem it to be necessary to understand your report?

A. In order to apportion the \$45,000 an arbitrary division was made which is not of any special importance but is mentioned here.

Q. You make it how, on your own judgment?

A. Done without very much careful study. I felt that the amounts would be very much larger proportioned and the meters and services charged there than they would be in the city limits and the distance- that have to be traversed by the mains to reach the consumers and that raises the total investment of mains, meters and service as indicated in the second table on page 17. It cannot be but very little out of the way. Then referring again to the \$45,000 I state that some subsequent investments of the company have undoubtedly gone into the business at Valley Junction in which case the investment in the city has been correspondingly reduced, that is correspondingly less out of the total which is obtained by giving the investment in the city everything but the \$45,000 by as much as the investment in Valley Junction has been increased to an amount over \$45,000 by so much, must that in the city be reduced as the total is in fact \$1,727,675.67 given on the previous page and referred to again here. The working capital was given by the company December 31, 1894 as \$37,106.10. Mr. Hall takes it at \$50,000 from then until January 1, 1910, when he made it \$68,952.91. The company claims \$150,000. I postpone that to later.

Q. Cover that in a later part of your report?

A. Yes.

Q. Now, appreciation, before you start in on that page I wish you would state how much study if any you have given to that branch or the different methods of determining value of property that is used for public service and how definite a rule there is if any as to what figure should be used or how that item should be worked out in any given case.

A. In principle I don't differ very much from the position taken by Mr. Lea and Mr. Baehr in their testimony as to method to reach depreciation, only I think they started with too high a figure on which to base it. They use the sinking fund method.

Q. What do you have to say about using the figure they took as to how you would come out in the end as to whether or not the final amount would be larger than was necessary under your notion of proper depreciation?

A. Their method of application would be about the same as I

have always urged, the sinking fund method, only I believe in tabling straight four per cent sinking fund which I believe one witness did while the other had a slightly different rate for long investment or property of great age, but the difference there is very slight and hardly need be referred to perhaps, but I think the sinking fund method that the straight line method is the one because what we are after in depreciation is not at all to determine the actual depreciation from year to year, but to determine how to finance the depreciation, that is the real issue. If you were determining the depreciation from year to year most of the depreciation would come the last year or two, that is if you take depreciation to mean the real decline in the service to the company of a given piece of property. That property being kept in good repair will be about as useful the next to the last year of its life as previously, but it will come to a period, not exactly next to the last year of course but approaching that period when its utility to the company will fail rapidly and it will be scrapped up. Of course if you were to look at depreciation as merely what you could sell the property for you would have a depreciation which was tremendous the first day after installation because after it has been put in the place it could not be taken out and sold for very much value, it would be a difficult thing to do and cost a great deal. On that method of course a tooth brush would depreciate to nothing after one person had used it for one minute, but that is not the kind of depreciation sensible to use in any case of this kind. Neither

3686 do I think it is safe for a company really to wait until they — actually about to throw their property away before they take care of loss in the investment. The question then is one between the straight line depreciation and the sinking fund method and the difference might be illustrated in this way, suppose a building had 41 years' life and cost \$100,000. Call it for short, however, 40 years of life and cost \$100,000. It is about as useful the thirty eighth and thirty ninth years we will assume as the first, but the 40th year it is going to be torn down. You must have your \$100,000 in hand. Now if you're going to set aside as both Mr. Hall and Prof. Marks did, a straight line depreciation fund without giving any interest on it, the company or the owner of the building would have to take 1/40 of that \$100,000 and set it aside every year or \$2,500 put into a sinking fund and invested anywhere would become worth \$250,000 at the end of the forty years in a four per cent investment and five per cent it would be worth a good deal more than that. But \$1,000 a net one per cent of the investment put into a four per cent sinking fund will amount to \$100,000 at the end of forty years. Put it in another way, suppose at the end of twenty years a person wants to buy the building, and is willing to pay for it just what it is worth on the basis of investment, say he paid \$65,000 on the ground that one half the life is gone that shows he paid what would have been in the sinking fund at that time towards the hundred thousand to cancel it at the end of the fortieth year, it probably would not be more than \$30,000 in the sinking fund. In other words, would not the building be worth \$60,000 or \$70,000 rather than \$50,000 at the end of half. Seems to me it would. I believe the sinking fund

method is the method for financing that and that does not mean the company should put the depreciation fund into a sinking fund, they can put it back into the property and earn that four per cent or five or six or seven or whatever they are able to, very presumably more than four, probably more than five. If you ask them to put aside enough to earn say, four per cent, on the amount in the property and they agree and earn more than that I should say there should be no reason why they should not keep the extra balance as a reward for their enterprise in investment of it in their own property. The consumer should grant them enough in rates so that in the most unprofitable method of investigating a depreciation fund, namely a four per cent sinking fund they would cover their costs. If they can make more than that that is their gain which I should say they should be entitled to.

Q. On page 18 you deal with depreciation, I wish you would make such explanation as may be necessary?

A. In general I take the position I think I have just been referring to although not so fully. I do make a point there that I think it would be fair to invest say, in a five per cent sinking fund in order to give the company rates sufficient to redeem the property on a five per cent sinking fund, cost of their plant or funds now in use and the company can invest and be secured at five per cent for example in its own bonds or in the bonds of other approved public service or railroad company. While I urge that I do not adopt it in this case, but use the most conservative figure of four per cent.

Q. With your experience what has been your observation or what do you have to say as to the effect of the company using what ought to be set aside for depreciation in say dividends or securities of the company and not carrying it in a depreciation fund to take care of the wearing out of the property.

A. If they did not carry it in a depreciation reserve or in a sinking fund, then they are in the situation of a capitalist who is earning we will say for convenience six per cent and appears to be earning seven, but the extra per cent should be devoted to depreciation reserve. Suppose, however, getting his seven per cent he treats it as all profit and distributes it, divides it as dividend or in any other way then what he is doing is withdrawing his capital to the extent of one per cent a year and if he does that then at the end of the time he is in the position of having used up all his capital.

Q. Now you take a plant like the Des Moines Gas Company plant where it has been in operation for a number of years such as this one has and no depreciation fund has been set aside there on the basis you think it ought to be or any other way and the plant is found to be in say 85 to 95 per cent condition, what would that indicate to you with respect to the manner in which the plant had been kept up to its highest point of efficiency, how it had been done.

A. It would indicate repairs, renewals and maintenance had been sufficient to keep the plant in excellent working order and to have covered therefore most of the depreciation, but not entirely. Anything short of 100 per cent would indicate to that extent an impairment.

Q. In this case what have you found if anything about the present

condition of the property as stated by the company itself or its witnesses?

A. As stated by the company and illustrated by their small leakage account, and in other ways like lack of complaint as to 3689 service rendered and the appearance of the plant I should consider that it was kept up in a good state of efficiency and no dispute with the witnesses that have already testified to that effect.

Q. The fund to do that has been charged to what account?

A. It has gone into operating expense although by reason of not having written off any depreciation the company having used any of the profits and meeting depreciation by putting some of them into their books as a depreciation reserve part of what has gone into capital account would be really an investment of the depreciation reserve.

Q. In the property?

A. Yes.

COURT: To what do you refer there?

A. There appears to have gone into property \$1,700,000 we will say in round numbers. That really does not all represent new capital. The capital has depreciated. If they had covered the matter as I think it could have been done more scientifically they would have called part of that investment, not capital investment at all, but investment of depreciation reserve. It is merely a method perhaps of accounting for a thing on the books and it perhaps might result in confusing the matter for me to go into it in that way. Perhaps to take the books as it is that fund charged as investment of \$1,700,000 and then consider you had property as depreciated is better than to go into these refinements as it really does not make any difference in the end.

Q. Comes out the same place in the end?

A. I think so.

Q. On page 19 what does that first table represent and how do you get at it?

3690 A. The first table on page 19 shows the amount of depreciation that has accrued and not been met by repairs according to the testimony of the various witnesses quoted, Mr. Lea for example has \$380,000 of accrued depreciation. Mr. Baehr \$310,000.

Q. These figures were worked out from their report?

A. Yes, at the page quoted in the right hand column.

Q. They are here for comparison?

A. Here for comparison. Mr. Randolph's was \$282,331, Prof. Marks 364,363 before taking out appreciation on the land. Mr. Hall \$245,862.00 which was arrived at arbitrarily by a six cent allowance per thousand feet of sales since 1894.

Q. You have an analysis here on part of page 19 with respect to Mr. Lea, Mr. Baehr, and Mr. Randolph, I wish you would explain that?

A. Take first Mr. Lea's estimate. He estimated the cost new of the property aside from the part that had no depreciation, the going value part and the land and perhaps one or two other things as \$2,580,140 and the annual investment necessary to meet this in a

four per cent sinking fund as \$37,385. These are his figures. This implies according to sinking fund tables an average life of $34\frac{1}{2}$ years and an average payment into the sinking fund of 1.41 per cent. per cent of the investment. In other words on every hundred dollars of investment you put in \$1.41 a year for $34\frac{1}{2}$ years and you get the thousand principal. So the figures he uses are just the same as if he had said he reckoned the average life as $34\frac{1}{2}$ years which he would meet in this way. Similarly Mr. Baehr estimated in his sinking fund at \$33,359.00 or 1.262 per cent of his cost reproduction now on the depreciable property which was \$2,-642,467.

Q. That was the amount he worked out in his report.

3691 A. Yes, and that implied an average life of 36 $\frac{1}{2}$ years.

I turn next to Mr. Randolph whose figures in a similar way imply an average life of 39 years.

Q. And is still smaller than either of the other two?

A. Yes. I think under the circumstances thirty six years is a fair average of these three witnesses and is certainly very conservative for it is rather shorter than the usual figures of average life of a gas plant of this character, rather nearer forty years or over. For example I think it would have been safe to say forty one years and the payment of one per cent a year into a four per cent sinking fund or if it only had been thirty eight years the payment of one per cent into a five per cent sinking fund to cover the depreciation. But I have adopted the four per cent sinking table and that required 1.289 per cent a year on the investment and further that sinking fund really should be reckoned on the average investment which would mean the investment—the cost of the land to be excluded because that is not depreciable as a matter of fact, but it was rather difficult to exclude that as the data on the cost of the land was not very clear to me in the evidence so I left it all in there as the books had it \$35,000.

Q. Turning to page 21 under the sub head, if that is a correct term, valuation at the beginning of each year with one half the additions of the year. I wish you would explain what that tabulation indicates.

A. Beginning with January 1, 1895, 429,000 odd dollars without the working capital which is put in later, but it is not supposedly depreciated any more than the land, starting with that it takes depreciation—

Q. Right at that point if you were — put in working capital as an addition to the value of the property and then work out the
3692 depreciation method would that be to the advantage of the company and disadvantage of the consumer or the opposite?

A. It is thought, I believe, it is about as broad as it is long, you would get a little larger requirement or yearly fund from the operating expense, you would have to add a little more operating expense, on the other hand, you would get a little greater depreciation at the end to deduct from the investment. Capital account therefore a little less and operating expenses a little more. I don't think there would be much difference.

Q. If you will, go through the first line there.

A. Take the investment as January 1895, as sworn to by Mr. Pratt and Mr. Lilley at \$429,426.83, adding one half of the additional investment of that year as *tes* testified to by Mr. Hall on the theory that the investment is more or less uniform through the year, an investment in the whole year is equivalent to half of it, as a matter of fact for the year, the whole of it, for half of the year as the whole exceeds half, then we come to the next column average investment aside from working capital by taking the other two columns, then apply depreciation 1.289 per cent and the last column gives what the proceeds in the sinking fund would be, the first year it would be merely this depreciation, the second year it would be four per cent interest on that fund together with the new depreciation of 1.289 per cent applied to the average investment of the second year and so on down.

Q. Then down at the bottom of the page what does that last row of figures represent then?

A. That shows that the average investment at the end of the year aside from working capital was \$1,667,000.

3693 Q. The average investment, is that you call it?

A. Yes.

Q. The value of the investment at that time?

A. It is the nominal investment on the books of the company and proceeds that should have been in a sinking fund and which I in another table charge to operating expense which it may be said would be \$241,000 in round numbers. In other words, the plant items is not really worth the \$1,667,000 which appears on the books, but \$241,000 less which might have been accumulated by this small amount in the sinking fund.

Q. For each year?

A. Yes.

Q. Now page 22, explain that as rapidly as you can.

A. There I take the last year, taking the year 1910 which more directly concerns the future in the matter of what it means to operate it for and that \$21,490.00 used on the previous page is again necessary to set aside last year and is equivalent to 4 cents per thousand feet of sales of 1910.

Court: Mr. Marks made it six cents.

A. Both Mr. Hall and Mr. Marks made it six, but they did not assume that the investment put into sinking fund drew any interest and if you are going to use operating expense in an amount sufficient for the depreciation, that depreciation must be set up somewhere it seems to me. The plant in other words has depreciated some amount between \$200,000 and \$400,000, that is the agreement of all the witnesses. Now what I am trying to find out, I attempt to base it typical of the future, for that is what seems to me the important thing is the future under the new rate ordinance, for example beginning the first of January, 1911. The thing to do is to try to determine from the history of the past how much it would

3694 be necessary to set aside to meet depreciation, that is one of the problems. Now the amount that had been necessary to

meet depreciation in the past has not been more than 1.289 per cent of the investment which is now right around or about 4 cents per thousand feet of sale. Therefore, I assume that it won't exceed that in the future, the immediate future at least. Then another important point from the study of this past is what has the company got of value in its investment today. It has not got the \$1,667,000, that is what it has put in. I am now leaving out working capital, it has put in that amount, but that is depreciated. All the witnesses say it is depreciated from \$200,000 to \$100,000. The company has not charged that up in any way and it must be deducted from their investment. They have an actual investment today of 1,600,000 odd thousand dollars less depreciation. In other words they can't have the cake and eat it too. They have really withdrawn the fund or put it into the plant under the name of capital when it is not there properly as capital, but part of it is there as depreciation reserve, if at all. The actual depreciation being taken at a little over \$240,000 we must start with the value of the depreciated property. Of course if it could be shown that the company had made no money whatever in the past, and I refer to that later, if it could be shown that it made very little money or a very unreasonable low amount of money so that it could not have taken care of this depreciation, then as the Massachusetts gas and electric commission has always held special consideration should be given in fixing the rates to that fact and if it should appear as I think it will later that the profits of the company have been sufficient to have allowed it to have set aside a sufficient depreciation fund and still have 3695 had good profits then that need not bother us now.

Q. Now beginning right there with the year 1910, the figure you work out in your table there of \$21,490 which you say is equivalent to four cents per thousand feet of the sales of that year, am I to understand from what you have just stated and what appears here on page 22 that an investment of that amount in say four or five per cent bonds, say five per cent bonds or five per cent sinking fund would take care of the depreciation to the property in your judgment?

A. I say that four per cent will take care of it to the extent of \$241,000 which I think is probably all the depreciation.

Q. Up to that time?

A. Yes, sir.

Q. You say something here about investing that in their own bonds. The bonds of the company as you understand it draw five per cent interest.

A. Yes. Furthermore, there are two points to be observed on this. While Mr. Lea and Mr. Baehr as shown on page 19 took a depreciation of between \$300,000 and \$400,000 and Mr. Randolph \$282,000 they based that on a duplication cost or a cost new or a very much larger amount than the books show to have been the cost of the investment. And their percentage and their method of reasoning seems to me all right, it is only that their base figure, the figure to which they apply depreciation is on an investment greater than has taken place.

Q. What do you say as to whether or not that is accounted for in the fact that both Mr. Lea and Mr. Baehr were working out a valuation based wholly on a reproduction theory.

A. Yes.

Q. And without reference to book cost of the property?

3696 Objected to in the first place as leading and in the second place as incompetent because purely argument and nothing else the witness being asked to argue the effect of the testimony of other witnesses and not being asked to state any fact or any opinion as to any matter of expert knowledge.

A. They have rec-used the depreciation as it seems to me upon a proper method upon what they think it would cost to duplicate the property and not upon what it has cost the company. They would therefore have the consumer pay to them a fund sufficient to finance the depreciation and give them back 100 per cent of the property as it would cost to duplicate today and not on what it ever cost the stockholder.

Q. Why do you figure interest on the appreciation reserve as you set it out?

A. Because the amount must either lie idle that we set aside to meet depreciation or it must be profitably employed. It is absurd to think that a company having set aside a certain fund to meet depreciation would allow it to lie uninvested and bring no return. It would naturally and the least profitable thing it could do with it would be to put in a four per cent sinking fund.

Q. What about the situation or liability to be drawn at any time for renewals or repairs?

A. That I meet in a large measure by saying that not a cent of it has been drawn. This is in addition to every cent that has been spent by the company. Now a cent has ever been drawn. This is purely and absolutely additional to any and all repair and renewal account. And furthermore in fixing upon an average life for the plant in determining a sinking fund, no matter what average you take, assume for a moment you take 37 years and I think Mr. Baehr at one time testified in this case 37½ average years which is
3697 a little longer than he really used in his table, suppose you took thirty seven years as the average life and you see that before that thirty seven years was up some of the investment in the depreciation reserve must be withdrawn to meet some property that has to be renewed at the end of twenty years. There are other parts of the property like most of the mains that won't have to be renewed for seventy five or a hundred years and that was all taken into account supposedly in fixing thirty five years. When Mr. Lea and Mr. Baehr and all the men who attempt to work that theory of a sinking fund they reach an average age only at the end of a long series of computation.

Q. What is there about the life if it has ever been determined or wearing out of the mains and services?

A. Where electrolysis is not present any more than the testimony shows has been present here, practically not at all, and where the

soil has not any particular assets, principally ashes and salts to corrode and injure the mains, there appears to be no known life. Mains are in existence today in some parts of Versailles and Paris and elsewhere that have been in much over two centuries. There appears to be no limit to the life, yet it is customary in getting a sinkind fund and in questions of age to give a life of seventy five to a hundred years.

Q. About what portion of this plant for instance speaking of the value of the property or the investment is covered by the mains as distinguished from the rest of the property?

A. That is given on page 16 where I use that \$650,000 approximately out of \$1,727,000 or some what over one third is in the mains.

Court: That don't include services.

A. Oh services will not last anything like that. They won't last more than fifteen to twenty five years generally. Of course
3698 that depends a good deal on local conditions.

Q. You are speaking more particularly of the mains?

A. Yes.

Q. In this matter of depreciation, Professor, this reserve fund as you have figured it out on page 21 defendant's Exhibit 43, while that fund has been accumulating, what do you have to say under your method and plan of carrying on the operation of the plant could be done in the way of maintaining the efficiency of the plant aside from piling up this reserve?

A. If a plant is kept to such point of efficiency as this plant has been which has been testified variously from 85 per cent to 90, along in there it is sufficient.

Q. How is that to be done?

A. It has been done from the repair and maintenance account here. This is the depreciation which Prof. Marks referred to as residual depreciation, it is over and above what was taken care of.

Q. In other words this fund, \$241,117.06 as accumulated under your table here at the end of the year 1910, is to cover that residual decay or depreciation that goes on, notwithstanding repairs.

A. I want to add that I think that the figure \$429,426.83 taken as the valuation January 1, 1895, for it was given by several witnesses like Mr. Walton Clark and Mr. White and others, Mr. Cowdry and others is about the same Mr. Pratt had given as the investment January 1, 1895, and I believe that there was some depreciation in there which had not been accounted for. That the nominal investment was \$429,000 as shown by the books or cost about that amount to duplicate it is the testimony of Mr. Cowdry, now manager of the Peoples Gas Company of Chicago, and Mr. Pratt, as I recall it and
3699 Mr. William Henry White, a big gas engineer of that time and

Mr. Walton Clark of the parent company. And I believe that in its then condition there was a depreciation there and that it would have been proper to have started with a lower figure than is taken here, but as this was the testimony of all those witnesses at that time, I believed it was certainly not unfavorable to the company to start with what their witnesses had at that time testified.

Q. Accept that as a basis?

A. Yes.

COURT: When was that?

A. 1895.

Q. On page 24, is another table following the statement that it shows the investment at the end of each year as found by Mr. Hall. I wish you would explain what that table indicates.

A. You are referring to what table?

Q. On page 24.

A. It takes the investment starting with 429,000 odd dollars at the close of 1894 adds to it the new investment of each year as given by Mr. Hall from the books of the company, in the next column it shows the proceeds of the sinking fund, the last column shows the investment less that depreciation fund.

Q. So that the last three columns or last line of figures in the three columns opposite the year 1910, indicate, what?

A. They indicate that assuming there has been a depreciation of over \$240,000 in the property and therefore that it is not worth today the investment of \$1,727,000. It is an attempt to show how that depreciation could have been financed in a sinking fund and that an investment, therefore, less the proceeds or accumulations of the sinking fund would be this figure.

Q. In other words, if I understand the table correctly it indicates how the investment could have been maintained at 100 per cent.

A. If they had placed an additional amount to operating expense which I refer to later, they would have had a sinking fund of this amount to take care of the depreciation.

Q. You mean an operating expense?

A. Yes, if they had charged operating expense the depreciation fund of 1.289 per cent a year on this investment in the first column they would have had enough to take care of this depreciation and they would not have to face the fact today of a depreciated investment.

Q. Mr. Brennan suggests that he finds a mistake in the subtraction there. Will you subtract the last line of figures in the first column, the last line in the second column from the last line in the first column and see if you get exactly the result that is shown here.

A. I get \$1,486,540.61 instead of 558.

Q. That is an error there of \$18, that should be 540.

A. I think so. The last line, last column page 24, instead of \$1,486,558.61, it seems should be \$540.61.

Q. On page 25 you take up working capital. I wish you would give us whatever explanation on that subject you think is necessary to make clear what you think about it.

A. I first call attention to the recent decision of the Wisconsin railroad commission of last year.

Objected to as argumentative, really it would come with more propriety from counsel than witness.

A. Well I didn't dwell upon this to any extent, but just on that

page I refer to their setting aside a little less than fifteen per cent for working capital in a company, a gas company of about two thirds the size of this one and the reasons they give for not setting
3701 aside a large amount.

Q. Now give us your own conclusions about it?

A. Then I state that two months of operating expenses is I believe all that is necessary to have in hand to meet the needs of working capital.

Q. Why?

A. Because in a gas company the receipts come in every month, and in fact a good deal all through the month and the bills—

Q. Right at that point, why do you say all through the month?

A. Because they are not all paid on one day, but the month may be taken as the unit and every month they get paid for the gas sent out and that means that in that month's receipts they must have enough to meet that month's expenditures, the expenditures of the previous month since the receipts are larger than the expenditures. The laborer has to be met every month, twice a month I think they pay here. The larger bills for coal and oil are met every month, but need not I believe be met more largely than one or two months' supply at a time or three months say at the most for while coal may be delivered along under a contract made to cover three or four years duration as is done in such cases and is done here, the deliveries of course are not all at once for three years, but deliveries are largely as needed along from time to time and therefore two months' supply—to supply a working capital sufficient to meet operating expenses for two months would appear to me to be sufficient and I have given a slightly larger amount, an amount equal to the fifteen per cent of the gross income allowed in the recent Wisconsin decision or \$80,000.

Q. Before leaving this question of working capital, this figure of
3702 \$80,000, what period was it your judgment that that amount of working capital for the business, or that that would be sufficient working capital for this company under this present condition or for the future.

A. The \$80,000 was the estimate I assume as fair for the year 1910. If you will notice page 27 it is gradually increased, the amount from 1894 on. It is for 1910 15 per cent of the gross income. It is more than two months, it is nearly three months. That \$80,000 is in reality nearly three months' expense account as shown on page 26, the page before. During the following year I should assume it would be increased somewhat just as it had been increased in the previous years.

Q. Passing from pages 25 and 26, working capital, you may state enough with regard to the table on page 27 to show what it is intended to indicate, what it does in fact indicate?

A. The first column on page 27 indicates a net investment after deducting depreciation or after deducting the amount necessary to finance the depreciation. After deducting in other words, the sinking fund that we have been talking about. The next column gives the working capital which is to be added to the net investment.

Q. Then the three last lines of figures in the table indicate what?

A. The last column indicates the net investment with the working capital given as it should be so that at the close this is the net investment after deducting the amount necessary to be in the depreciation fund, \$1,486,000, add the \$80,000 for working capital and get \$1,566,865.

Q. Am I to understand from that statement and explanation you have just made that upon your method of working out the investment, the net investment in the business, that at the end of December 1910,

the total net investment or the total amount of money used 3703 in the business at that time was \$1,566,865.

A. That represents the investment that is put in. It *is* does not mean a question of whether the land is worth more now or not, but takes account of what has gone in as investment, less depreciation.

Q. And with no appreciation for real estate?

A. No.

Q. On page 28 you deal with overhead charges. In a general way what do you include in that term, what do you cover by overhead charges.

A. As stated in the first paragraph I refer to engineering and to supervision during construction, drafting, interest charges, legal expenses and contingencies casualties, and omissions, there are all sorts of items which you perhaps do not see in the finished plant, but which must — existed.

Q. In the examination and investigation you have made here and information you have gathered during this trial what do you have to say as to where in the accounts of the company if at all the money used for the purposes just mentioned has been charged.

A. It has been charged I believe so far as spent to operating expenses.

Q. Why do you refer in your statement there as one of the overhead charges to omissions and contingencies?

A. Because the claim is always made that there are omissions, and cases differ greatly as to the extent of omissions. In an inventory of the kind that has been prepared here omissions have been shown to be very slight.

Q. Have you gone carefully through the reports of Mr. Lea and Mr. Baehr and Mr. Randolph for the purpose of analyzing those overhead charges and working out the amounts that they have carried into their final figures and their conclusions?

A. I have I think except Mr. Randolph, I think he did not give opportunity for the consideration.

3704 COURT: He added 20 per cent, so if you divide by 120 you will get it.

A. The other two witnesses, Mr. Lea and Mr. Baehr gave figures from which I have tried to compute the overhead on all the property except the paving because their overhead on paving I think should be included with the whole question of paving and the problem of overhead on the cost of the property could be taken out by finding

total overhead. I tried to do that, if I did not succeed exactly, I think I am very near to the figure.

Q. What result did you reach?

A. I have the result on Mr. Lea's overhead on all property except paving was \$387,739 and Mr. Baehr's \$443,839. In other words they were both in the neighborhood of \$100,000.

Q. Now what was their original figure of overhead before you tried to work out these final figures.

A. You will see the figure in the table practically by adding for Mr. Lea the first and third lines.

Q. Up in the body of the page there?

A. Yes, I use it there too, \$567,780 for Mr. Lea beginning the second paragraph and Mr. Baehr \$615,603.

Q. From these figures what was it you deduct?

A. I deduct overhead on paving, overhead on the rest of the property and I do that on the basis that the overhead on paving—the overhead on the cost of the property could be taken out by finding what proportion the paving bore to that class of property.

Q. What were you trying to ascertain as these overhead charges, just the amount that was included by these gentlemen in the property?

A. In the property now.

Q. Of the plant?

3705 A. Of the plant.

Q. Without reference to paving.

A. And when I gave you figures a minute ago of how much they had in the overhead after deducting paving, it was the latter figures of the last two lines of the table on page 28 which was left. I had the property depreciated as they depreciated it. If you take it on property in the third and fourth lines shown in the table, Mr. Lea had apparent overhead aside from that on paving of \$455,892 and Mr. Baehr \$502,934.

Q. Then you make some further reduction from these figures?

A. Yes.

Q. For what reason?

A. I was trying to get to some extent the present depreciated value of the overhead. I do not have to use the figure in any direct computations afterwards and did not go into the matter quite as fully and minutely as I should have done if I had needed to use it in any later computation. This was intended as a rough approximation of those items.

Q. Did you figure out the proportion or per cent that Mr. Lea and Mr. Baehr had included in their overhead, the per cent of the whole?

A. Yes, I gave that on that last line of that page. It was 26½ in the case of Mr. Lea and about 28½ in the case of Mr. Baehr.

Q. On page 29 you deal with the book cost of the property and the investment and the increase of the property. I wish you would make whatever explanation of that page you think necessary?

A. I first call attention to the fact at the top of page 29 that — repeated investigations of the subject only 12 per cent has been allowed in all Wisconsin rate cases.

3706 Q. What was the per cent allowed here by Mr. Baehr and Mr. Lea?

A. About twice that, little more than twice. As I stated here at the top of page 29 Mr. Lea raised the property aside from land to 28 per cent and Mr. Baehr about 30 per cent for overhead charges.

Q. That covers any omissions and engineering?

A. There is no difference between page 29 and the figures on page 28 are the figures of value of the property only at the top of page 29 the per centage is added to get the total.

COURT: On new paving, according to Mr. Lea, it is \$112,000?

A. That is overhead charges. These overhead charges alone I refer to on a later page. In other words while the fund was paid in by the city they get an overhead on it as a credit.

COURT: The total amount of that overhead by Mr. Lea is a little over \$120,000, that is about one third.

A. May be.

Mr. BYERS: It was \$567,780.

COURT: No the total amount of his paving, replacing paving.

A. I think if you would turn while you are on it, to page 33, give exactly the figures on paving with overhead in it of both Mr. Lea and Mr. Baehr and you will find that the overhead on the paving, the base figures of Mr. Lea \$419,685 new, \$375,098 present value. Mr. Baehr \$393,000 new and \$344,890 present value.

Q. Is there any further explanation to be made of pages 29 and 30?

A. Page 29, the last paragraph points out a new thought.

Q. Tell us about it please?

3707 Objected to as purely argumentative, not the statement of any fact or of any expert opinion and purely an argument on a question of law as to whether this paving charges should be allowed.

A. First the consumers as a part of the taxes have paid for the paving. They are now asked in the price of gas to pay interest on it to the gas company on the theory that a new company would have to cut into the paving and duplicate the system. The other point that I make is still more important and is that if the company is to receive an increase of value from year to year through an unearned increment or unearned benefit from the city in paving, it is likely to continue to receive such favors for only half of the mains are now under paving, according to the testimony and the paving now over mains is not as good as it will be 20 years hence as an improvement in the character of the paving always follows growth of a city. Now then in the past this paving has amounted to \$300,000 to \$400,000 and this divided over the entire sales for the last twenty years amounts to over 8 cents a thousand feet. That should be cents instead of per cent, the second line on page 30. If there has been an unearned revenue to the company to be capitalized in fixing the rates of 8 cents a thousand feet in the past it is likely to be something like that figure in the future, anyway several cents per thousand feet and I think that should be taken into account in fixing the rates as a further revenue if the theory is adopted that the company

has the right to increase its capital with the increase of pavement over the mains paid for by the consumer or tax payer then that also becomes a revenue of the company, that increase becomes a revenue of the company which they realize on in the capital on which they charge a return for gas.

Q. It was not quite accurate was it to say that the pavement had been paid for already by the tax payers.

3708 A. Well bonds may have issued for it or the abutting property owners may have paid, but the gas company did not pay for it, does not claim to own it, never returns it for taxation, don't keep it in repair. The main point is there is an unearned increment there is allowed to figure that. It is so broad and as long one way as another and whatever you put one place you have got to take off another.

COURT: Twenty five per cent of the mains were laid under pavement and about 21.1 per cent as I figure it have been paved over since according to the evidence. In other words, twenty five per cent according to the testimony of Henry Moul, and that is the only testimony on it, of the mains that were laid were laid under pavement and the whole amount of pavement now I think is 46.1 per cent so that they stand in the relation of 25 and 21.1 per cent. I call your attention to that so if you want to make any statement, you may.

A. The amount, 25 per cent was put in you understood from Mr. Moul after the paving was laid.

COURT: That is his testimony and that is the only testimony I think on the subject. That was in response to a question put by Mr. Brennan or Mr. Byers, I don't know which. I figured it myself taking Mr. Lea's statement, I figured it myself as 46.1 per cent of the whole amount of mains are under pavement, that makes 21.1 per cent that was laid before the pavement was put down.

A. Of course all the cost of laying mains that were laid after the pavement is included in this investment already used.

Q. Then with these figures stated by the Master your statement that half of the mains are now covered by pavement is not quite correct.

3709 I knew it was not exactly. I used half as nearly 50 per cent, his figure is 46.1 as I understood. I knew it was not quite half. I have the figures in my room. But I should believe from my knowledge of the city and all other such cities that the paving now laid is more expensive than the paving originally there in many cases, in the case where mains were laid without paving. In other words the figures Mr. Lea and Mr. Baehr give here as cost of paving over mains is a larger item with respect to those mains that have paving over them,—that had to be laid through paving than the original cost of cutting through that paving because the paving then in many cases, I can be morally sure was not as good paving as they are now because the whole tendency of paving is to increase in value, in costliness, poor paving being extensively replaced by better and more expensive paving.

COURT: That is of course something you don't know one way nor the other.

A. No not a thing. Simply the general tendency.

Q. As far as their figures are concerned they base them on the character of the pavement as it existed at the time and as shown by the inventory do they not?

A. They base their figures on the paving as it was January 1, 1911 or in November, 1910, as it was in the inventory and not on the paving that was there when the mains were laid.

Q. Are you sure about that?

A. I am talking about Mr. Lea and Mr. Baehr. They were putting a price on the inventory made last November.

Q. For pavement at that time?

A. Yes. That is certainly the time I read the inventory and their testimony.

Q. On page 31 of your report under the subhead of total 3710 discount on bonds, I wish you would tell us what you work out there if you will and what importance if any it has in connection with this matter?

A. It has a reference to what I stated a little while ago that discount on bonds is a question of the rate of return and not a question of the cost of property and a bond, five per cent bond bearing a ten per cent discount is not very different from a five and a half per cent bond at par. I worked that out very precisely in a later point in the report. But the entire point is not very important in this case since the entire bond discount shown by the books is only \$32,950.

Q. Now on page 32 you deal with the rise in the value of land. Let me ask you about that before taking up your report just as you work it out here. You were down at the plant and looked over the property were you?

A. Yes.

Q. Did you observe anything about the real estate that indicated to you any increased value for the purpose of manufacturing gas in the real estate itself or anything about it from its original character?

A. It would not appear to me so no. It had the same advantages then that it has now.

Q. What change if any is noticeable down there in the character of that real property now from what it was evidently twenty five or thirty years ago.

Mr. GUERNSEY: Allow me to ask the witness to state whether he saw it twenty five or thirty years ago, that might be material to the question?

Mr. BYERS: You can ask him that later on, you are going to have a lot of time.

3711 A. There are few new improvements that I notice in that neighborhood.

Q. I don't mean that, is there anything about this land itself that in any way has changed the value of its use, I don't mean the value of the property itself, but has anything about the land itself in the way of a change of its surface or conditions of the surface that has changed the value of its use for manufacturing gas?

A. No.

Q. So that whatever increase if any there is in the value of the

land itself, is an increase in the market value of the property for general purposes, real estate for general purposes, is that so?

A. Yes.

Q. With your experience and the information you have gathered during all the years of your busy life, how would you deal with that kind of real estate in a rate case if you dealt with it at all, that is the increase in the value of the real estate.

A. Until a property is sold when the increased value would be subject to division as surplus I don't think it should be capitalized at all.

Q. What difference is there between the increased value of the real estate and the surplus or earnings on deposit and subject to division among the stockholders.

A. It is a surplus of the same general character perhaps, I have thought it would be more similar to the surplus over paving. It is a surplus of course not directly earned by the company. I hold that in a regulated and more or less protected monopoly the investment is the sole question, we give the right to earn a depreciation fund, the right to develop and promote business out of operating expenses and having done that we have the right to restrict the possibility of speculative earnings more than is ever attempted under competitive business.

Q. What do you have to say for a company now for the purpose of fixing a fair charge or rate for services is to be allowed to capitalize the appreciation on real estate, increased value of the real estate where there has been no increase in the value of the use of the real estate, in cases where they are allowed to consider that increase for the purpose of rate making, then what do you have to say as to what should be done on the other side of that question with that increase.

A. It should be considered just as I explained in the case of paving. It should be considered as an increase likely to continue, certain to continue and that probable yearly increase should be considered a revenue of the company as has just been decided to be the case in two decisions by the New York Public Service Commission of the 1st district.

Q. That is to say the average annual increase in the real estate over and above its original cost is carried into the revenue of the company?

A. Yes. But I don't know how much the land here cost for while I used the figure and thought at the time when I wrote that that it was \$35,000 basing it on some exhibit of Mr. Hagenah's I think since then that I learned that some further purchases were made, but I believe \$50,000 would perhaps be an estimate of the increased value of the land on the city's witnesses and the company claims much more than that, but even \$50,000 increase in the value of the land is over 1.10 cents on every thousand feet of sales from the starting of the company and there is no reason to doubt that such increase will continue in the future and if more than \$50,000 increase has been had in the past it might be reasonable to say more than that would occur in the sales in the future.

Q. If that theory was carried out rigidly and the increase in the value of the real estate was large enough it would after awhile absorb the entire rate that was charged for gas would it not?

A. What is that question.

Q. Suppose a large manufacturing plant was located within a block and a half or a block of this land down here and would increase its value several hundred per cent over what the company now claims, what effect would that have on the consumer if the rate for gas was to be based on the increased value of the land?

A. Would have to be a very big increase in the price of gas. If a great railroad terminal was established next to it, or a big oil well discovered near the land, natural gas wells.

Q. Or a civic center like has been built over here?

A. Yes.

Q. Even gold mine?

A. Perhaps a coal mine.

Q. Returning to page 32 you may state if there is anything further you wish to add with reference to the matter that appears on that page. That summarizes what I have just been saying. Calls attention to the decision in New York state which has taken that position.

Q. Is that the district in New York that the complainant referred to here during the taking of the testimony of one of the witnesses, I think Mr. Randolph perhaps, but one of them anyhow referred to some method of the first district in New York, is that the same district?

A. I don't recall what you refer to, but it is the district 3714 that that covers Great New York City. The state of New York is divided into two districts, one called the first district having New York City or Greater New York and the other in the rest of the state.

Q. This district is the district from which the gas case went to the supreme court?

A. Yes.

Q. The Wilcox case?

A. Yes. And this decision was made in the district where that decision was rendered.

Q. Just recently?

A. This decision was rendered in 1908 I believe.

Q. This decision of the commission?

A. The decision of the commission was rendered this summer, rendered in August I believe, rendered last month, one decision last month and one a month or two earlier of the same character, two decisions. Both since this case opened.

Q. What I had reference to as being offered by the other side was some publication showing the system of bookkeeping that had been adopted in that district especially with reference to donations and that class of operating expenses?

A. I think a reference was made to the classification of accounts that was adopted by both commissions of New York state in some joint conference.

Q. Now page 33, have you covered that as fully as you care to in your testimony up to this time?

A. I think so. It shows how much is allowed for paving by the witnesses new and upon depreciated value.

Q. I wish you would explain that a little more fully if you will.

3715 A. On the lower part of the page is shown the mains and services as a whole, Mr. Lea gave a value new of \$1,963,027 and a present value of \$1,732,963 a depreciation of 11.72 per cent. If there was that depreciation on the mains and services including the paving, there must have been from the way they testified I judge the same depreciation on the paving alone for they testified they did not take the depreciated value of the paving as paving, but how much it had depreciated as part of the system of mains and therefore applying these percentages of depreciation to the value they give for paving new as shown in the first table on page 33 I get what appears in that table and last column as present value of paving.

COURT: If they use both the pavement, cost of replacing pavement and cost of laying mains and cost of mains, if they depreciate all of it that would be the depreciated value of payment and that would not depreciate at all as far as they are concerned.

A. Pavement depreciates much faster than street mains?

COURT: They don't have to keep it in repair?

A. No. By assuming that the paving had equal depreciation to the extent that the mains depreciated they retain a larger value than if they had assumed the paving had depreciated as much as it actually has for paving has a shorter life than street mains.

COURT: To my mind that is an advantage rather than a disadvantage in other words the same proportion of depreciation is there used.

A. Yes. I am trying here merely to see how much is involved in the pavement question.

COURT: I understand that, but while we were on that point I wanted to call attention to it and get your idea of it.

3716 A. My idea is that the paving has depreciated as a matter of paving much more than the mains have depreciated and if the court allows the pavement theory as they have given it and deducts that you may have to deduct annually that same percentage on the pavement as on the mains. But the point that strikes me as necessary is that the same amount of increase in the value of the property by virtue of the paving becomes also a probable revenue in the future, there is a probable increase in paving in value.

COURT: Prof. Marks said I believe, he said the dry ground under a pavement where mains would be made them practically last always, that is to say there was nothing that would deteriorate them. I just want to call your attention to that, if that was true then does it affect the question of depreciation quite materially.

A. I have not understood from all the evidence I have ever come across that paving affected the life of the main one way or the other.

COURT: That is his testimony I think that made it so they practically last always, that is not the exact language.

A. I heard his testimony but the thought I understood him as meaning is that all mains were practically without limit of life, I didn't understand that he meant the paving would increase the probable life. If he did say that it is a new point to me.

COURT: Paving has to keep a dry foundation?

A. That does not affect the life of a main, dry foundation.

COURT: That is what I am calling attention to as to what he said.

A. I will have to look that up but there is as long life to water mains as gas mains and water mains of course are full of
3717 water. The mere presence of water along or about a main is not what affects the life, it is acids or electrolysis.

COURT: There would be less electrolysis with dry ground than there would be with wet?

A. That is true, yes. Does not seem to be much of it any way here.

Q. On page 34 you say something there about what would follow if next year the paving to the extent of \$300,000 should be made over these mains.

A. Of course that would not affect this matter in any way unless it was necessary to make a new rate.

Q. Then it would that is your notion of it?

A. Yes. Well it would be my notion that if the theory is maintained that the company is entitled to a return on the paving that such increase of paving they could go to the court and say we can no longer have this ordinance for our capital has been increased by this paving, and we must have more return on our investment.

Q. It is your notion that readily follows this paving theory?

A. Yes. In a perfectly stationary town and perfectly stationary sales and stationary expense, but nevertheless with an increase in its interest, if pavements have been greatly increased the price of gas would increase under the system of regulation of rates where you attempt to have the regulation always just enough to give a reasonable return on the investment.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

3718

Thursday Forenoon Session.

SEPTEMBER 21, 1911—at 9.30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

Prof. EDWARD W. BEMIS, continuing his direct examination, examined by Hon. H. W. Byers, testified:

Q. Professor Bemis, in arriving at your conclusions as to values and operating costs and in making up your tables of figures and

conclusions, did you consider or allow in any way the element called going value?

A. No.

Q. I wish you would explain the reason why—what if anything you did do about it.

A. Going value may represent either one of two different things. According to one theory it represents the cost of getting the business, or the difference between the profits of a going company and the profits that a new company would make during the years assumed necessary for construction and for securing the same amount of business. According to another theory, which has been used to some extent in Wisconsin, it represents the losses, or early losses of a company—the failure to make at least what is assumed to be some reasonable rate of return. According to that theory the more unprofitable the company has been, provided ordinary good management can be shown, the more going value it is entitled to.

Q. That is, the more unprofitable the business?

A. Yes. According to the other theory, the more profitable the company and the larger the company, the more going value it is entitled to; but the theories in a measure contradict each other.

3719 Q. Now the first theory, the one arriving at the going value by taking the difference between hypothetical operation and the existing plant, in the theory adopted, as I understand it, by Mr. Baehr and Mr. Lea?

A. That is right.

Q. And the other theory, the — of arriving at going value by capitalizing early losses, is the theory adopted by Mr. Hagenah?

A. Yes.

Q. Now, is there any other method that you know of that has been used?

A. There is a third method—which also should have been mentioned—adopted by Mr. Randolph, which, as he explained it on the witness stand, consists of studying the history of the last year, or last few years, finding a certain increase in the number of meters and noticing what percentage of increase there would have been to have kept pace merely with the increase of population—assume that to be an increase that would have cost the company nothing in the line of solicitation and new business expense. The other increase *increase* would be assumed as due to some special efforts on the part of the company, provided the price remained the same; find what that total expense of solicitation has been or of trying to get new business and dividing that over this amount of what might be called extraordinary increase assumed to be due to the special efforts of the company; find the ratio per meter between the two and in that way get the figure of cost per consumer or per meter; that cost due to special effort. Then I would understand that would have to be applied not to all of the meters in use, as I rather think Mr. Randolph did, but to that proportion of the meters in use due to those exceptional
3720 efforts. A figure is arbitrarily reached of \$20 to \$30 a meter—Mr. Randolph reached such figure himself by that method.

Q. As a matter of fact, is it not true that all three of these methods in a way are arbitrary and the result reached rests entirely upon the judgment of the particular person who is making up the computation as to the base figures or the foundation of the final result?

A. I have never understood any claim made that it rested on anything more than the judgment of the witness.

Q. Now you worked out from the reports of these several gentlemen the amount included in their final figures as going value, did you?

A. I gave the figures that they allow for going value on page 37 of my report; that is not based upon any computation of mine—that is based on their direct testimony.

Q. As to the amount that they included for that element?

A. Yes.

Q. Now you go over that quite fully and give your views and judgment about it, do you not, on page- 37, 38, 39, 40 and 41 of your report?

A. That is true.

Q. Now, resting your answer upon your own experience and judgment in matters of this kind and what you know about the operation of gas plants and the method of carrying on the work of manufacturing gas, what have you to say about that question of going value; what relation, if any, or what consideration, if any, it ought to have in a rate case?

MR. GUERNSEY: Of course our objections go to all of this testimony—

3721 THE MASTER: The objection applies to each and every answer of the witness, to each and every question and to each and every part of the same as fully as though repeated to each.

A. I do not think that in a rate case going value should be included as a basis for fixing rates. As between the various theories, I think that the idea back of the Wisconsin theory has some validity, but I think the application of it made by the Massachusetts Commission is a better application.

Q. And that is fully explained here?

A. Yes.

Q. The matter found on page 42 of your report, I wish you would explain that briefly—what reference, if any, that has to the going value question?

A. I attempted to show that the profits of the company had been on the physical investment, or the book investment, during the entire period of its life.

Q. And how did you attempt to show that; what items if any were included or excluded?

A. The next page, page 43, shows part of the process.

Q. I wish you would explain that quite fully, that table on page 43.

A. Beginning with 1893, with the gross revenue as reported by Mr. Hall, and the operating expenses also as reported by him, that

I think I included—I intended to; and I think I did included in the operating expenses an accident or series of accident claims.

Q. Amounting to \$3,689?

A. Yes, which Mr. Hall by mistake had omitted. The deduction of the operating expenses from the gross income for each year gave the nominal net income, which is in the third column,—that income would be as it appears on the books of the company, with 3722 slight amendments and changes that Mr. Hall had made in them to cover the deduction of certain payments for interest charges which are no part of operating expenses, and adjustment of the federal tax and a few things of that kind; but this is substantially as the books show the income which they treated as income. But since their witnesses, as well as the City's, indicate a depreciation so that the *the* amount that has nominally gone into construction has not a value to it equal to that nominal amount by over \$200,000 I built up in the fourth column a sufficient allowance to take care of that depreciation. In other words, I assumed that the Company's income was really not as great as appears in the third column and as would appear from their books, provided they had met the depreciation from year to year.

Q. As they went along?

A. Yes, as they went along. Therefore I have to take out from the income in order to get the last column the true net income, the amount that would be added to operating expenses and taken from the net income in order to get into the sinking fund at four per cent. Now it would not be necessary to deduct as much as this income if we assume that they find a more profitable investment for their depreciation reserve than four per cent, and they probably would; they could either put it in a five per cent of their own or other good companies or into a plant where they could earn this; so that it would as a matter of actual business history and common experience, it would not be necessary to set aside as much for depreciation yearly, I think, in order to reach the same total of \$240,000 at the close. But since there can be no dispute that it could earn 4% anyway without trouble, I have adopted the 4%, although I 3723 believe I would have been justified in taking 5%.

Q. What would have been the effect of the final outcome of the fourth column here if you had accepted a higher rate?

A. I have not computed it.

Q. Would it have resulted in a larger net income?

A. It would. The additions that go into the sinking fund each year are the 1.289 per cent of the net investment which was explained in a previous table and work out there, on page 27 the net investment was given, including depreciation, and on page 24 the net investment was treated further, and on page 21 perhaps appears the table most important in interpreting page 43.

Q. Now, if I understand you correctly, if I understand this table correctly as it appears on page 43, beginning under date March 1, 1906, the gross revenue from the business of the Des Moines Gas Company was \$390,833?

A. Yes.

Q. The gross operating expenses for the same period were \$252,218?

A. Yes.

Q. Income over operating expenses \$138,615?

A. Yes.

Q. Deduction for sinking fund purposes to cover depreciation \$13,186.95.

A. Yes.

Q. Net income \$125,428.05?

A. Yes.

Q. Then pursuing the same method the table, if I understand it, shows a net income for the year ending with 1908, of \$147,607.16; and the year ending 1908 to 1909 \$174,172.64; the period between March 1st and December 31st, 1909, \$134,811.53; and the year ending with December 31, 1910 \$170,618.40, is that correct?

A. That is correct.

3724 Q. To go a little farther with this table, worked out upon the plan you have adopted here, what does this \$170,618.40 represent?

A. It represents the income from operation that can be divided in the dividends and interest and still leave the plant investment intact.

Q. In other words, that amount can be taken out of that year's business, divided among the stockholders without affecting the capital?

The MASTER: Right there let me ask a question. What was that amount that you gave you figured depreciation on?

A. It was 1.289 per cent. That is the amount necessary to put into the 4% sinking fund to redeem the principal in the period taken. I use this on page 21 in the table there which became the basis for this table.

Q. The figures are found too on page 23?

A. Page 24 rather, the previous table right through, 21 and 24 particularly.

Q. Now, the table on page 45 of your report, Mr. Bemis, what is that and where do you get it?

A. That is from Mr. Pratt's affidavit as here repeated verbatim.

Q. That has been referred to heretofore as having been filed in this court in the trial involving the Capital City Gas Light Company?

A. In the text here I state, however, that the totals at the bottom are mine. I made those totals merely to show what the average rate of profit was on the cash invested in that table.

Q. In the table made up by Colonel Pratt the totals were not carried out?

A. The last column was carried out, but the totals were not, no.

3725 The MASTER: But there is no depreciation?

A. I think I said yesterday the testimony indicated that they had not charged anything for depreciation; whether their maintenance and renewal account was sufficient to take care of it is not stated. I do not believe it was sufficient, although the testimony given at the time by Mr. Clark, Mr. Cowdry, Mr. White and Mr.

Pratt himself was to the effect that the property could not be duplicated for less than this sum; but they seemed to assume a new plant.

The MASTER: That would leave the average there to be reduced by that percentage 1.289 and would make the average percentage 5.52?

A. Yes, it would be 1.289, practically 1.290 taken from 6.81 would be 5.52. The Company, however, is given the full allowance of \$466,000 in the net investment in the computations I gave and Mr. Hall gave, so that the Company is allowed a return on the full investment and not on a depreciated investment as was left at the close of 1894.

Q. So that for the purpose of this case and as made up from your computation the result would be the same?

A. I won't say it exactly; I have not computed it, but the result would not be as great a discrepancy as appears from that figure, because if you started your computations in 1895, that sum figured less than the investment shown here. To allow for depreciation at that time then the profit since then would be correspondingly increased, so that the net result of a change to harmonize with my belief on the early theory of depreciation, or early history of depreciation, would lessen the profits the first few years before 1895, and increase the rate of profit since then, but I did not make that change, because

3726 I had no real authority for making that assumption as to that testimony before 1895.

Q. At the bottom of page 43 there is a little error in subtraction. The last two items, the subtraction made between the third and fourth column. The third column figures are \$192,108; the other \$21,490.40?

A. \$170,617.60 instead of 618.40.

Q. Which would be 68 cents?

A. \$170,617.60 instead of \$170,618.40, a difference of 80 cents, I think.

Q. What is the figure in the third column of your report?

A. It is \$192,108.

The MASTER: Do you reject in that the \$5,621, and the \$10,000 of increase of salaries?

A. Nothing is rejected of that character in that computation I believe, except possibly the rate regulation expense; but not the \$10,000 increase of salary.

Q. I notice on page 42 you have an explanation there as to what you put in and what you leave out—rate litigation expense \$9,305, in 1895?

A. Yes.

Q. And then you include the accident item of \$3,689?

A. Yes, I think there I leave everything in; I think I did. The correction then at the bottom of page 43 is only a small one and instead of 170,618.40 it would be 170,618.60.

Q. Before we leave this item, having in mind the suggestion of the Master, that the ten thousand dollars salaries, and the five thousand dollar rate expense, I wish you would turn—there is a table there showing the actual gross revenue without taking out anything, and the actual operating expense as shown by the books without
3727 subtracting that \$10,000 and let us see if it is out. I think \$192,108, is just what is shown in Hagenah's report there.

Mr. Hall was asked to make up a statement showing just what the books showed without his changes or modification?

A. Mr. Hagenah, I find in Exhibit 26, gives operating expenses for the last year \$353,600. I think that difference was made up of the allowance for interest and a few other things not connected with the \$10,000 of increase in salaries, and the \$9,000 litigation expense, whatever it was. I used the same figures Mr. Hall used on page 19 for this last year and I am quite clear in my mind that when I prepared this I had before me the full operating expense with no changes from Hagenah, except interest allowances and one or two slight matters of that kind. The salaries were allowed to remain in that computation. But I can verify that this noon.

Q. I wish you would look that up and verify it?

A. I will.

Q. What page on Mr. Hall's report was it you referred to just a moment ago?

A. One reference is at page 19.

Q. Now on page 7 of Mr. Hall's report, I call your attention to that page Mr. Master, in response to your question there, there is a table made up showing, as Mr. Hall said, what the books show before any adjustment, and that shows as he stated it, the net revenue available for interest and other charges \$192,107.65?

A. That is the same figure as I have.

Q. Now what do you have to say as to whether or not anything is left out or that \$10,000 salary item or the \$5,000 and some dollars replacement?

3728 A. All that and all the donations and everything is in.

The only thing excluded was some payments for interest, and some adjustments may have been made, I am not sure in regard to the federal tax.

Q. So that the figure then \$170,617.60 in the table at page 43 would represent the net income of the Company based on the books as Hall finds them, with a depreciation figure out on a sinking fund basis, as you have it?

A. Yes, sir; exactly.

Q. On page 47, will you explain what that table represents and how you arrived at the figures that appear there?

A. That represents in like manner the conditions since 1894 as they were given in Mr. Pratt's table for the previous period, only now depreciation has been taken out of the net income, or out of the nominal net income, to give the true net income. Of course in order that I might be exactly exact, I would have to change that last line now, of 170,618.40 to 170,617.60 but that is too small I think and had better let it stay as it would change the footing and everything.

Q. Now, Professor, I wish you would, for our benefit, and to have the matter in the record from you, state just how the operations of the Company would work out upon the basis of the Pratt statement and affidavit, and the operations of the Company since March 1, 1906, with the sinking fund reserve taken out, as you have taken it out in the former table, give the figures and return that the Company would receive on that basis, or has received on that basis.

A. During the period from January 1, 1895 until February 28,

1906, there would have been an average rate return of 8.187 per cent on the investment, the average investment of each year. 3729 If, however, we had made an allowance for depreciation in the earlier period before 1895, it would have left that return some less. This return would have been greater because it would have been reckoned on a smaller investment.

Q. Beginning with March 1, 1906, I wish you would give us the figures?

A. Beginning with March 1st, 1906, the first year, to March 1st, 1907, the investment with the working capital and after deducting depreciation was \$1,311,524. The net income after setting aside a depreciation fund \$125,428.05, leaving a percentage of return of 9.56 per cent. During the next year, ending March 1st, 1908, the investment would have been \$1,384,163; the net income, after deducting for depreciation, putting that into a separate fund, \$147,607.16, or an average return of 10.66 per cent. The next year ending March 1st, 1909, the investment would have been \$1,403,081, and the net income, \$174,172.64, and the rate 12.41 per cent. The next ten month- from March 1st to December 31, 1909, the investment would be \$1,473,181, and the net income for the ten month- \$134,811.57, or at the rate of 10.98 per cent. That rate of return is equivalent to a return on five-sixth- of the capital for the whole year. Again, the last year, 1910, the investment is \$1,566,865, and the net income \$170,618.40 and the per cent 10.89. The average return for the period of 10.92 per cent. Before I leave this page, I would like to call attention to the point I was referring to yesterday on the chart of Mr. Hall. He puts in that new holder in the year 1906 on March 1st. That brings down the rate of return on the investment for that year to about 9 per cent, while in 1904 and 1905 it had been 13.

If however the holder had been put in in 1903 and 1904, 3730 probably going into use in 1904, as the inventory states and as Mr. Lea states in his Exhibit, then the revenue would have been somewhat less in 1904 and 1905, the rate of return would have been somewhat less and that would have pulled down the average per cent. On the other hand there would not have been this apparent irregularity of fluctuation in the rate of profit which appears in this table.

Q. That is between 1906, 1907 and 1908?

A. Yes.

Q. Now on page 48 of Exhibit 43, I wish you would explain the matter that appears there?

A. I there show what the average profit has been for the three periods grouped into one period.

Q. Just explain that?

A. I take the totals of each of the three periods and add them together, the total profits for the first period \$371,450, according to Mr. Pratt. The second period as given in previous tables \$655,598.; the third period \$795,618. since March 1, 1906.

Q. What result do you reach by that method as to the rate of return, covering the entire period?

A. 9.15 per cent.

The MASTER: The first period has not got depreciation?

A. The depreciation has not been taken out. That will show just what I was referring to a few moments ago. If the depreciation had been omitted then 6.81 would have somewhat fallen, a cent or perhaps 1.3 per cent. On the other hand, the sum of the actual investment would have fallen, the rest being in the sinking fund, then the total sum of the investments given here \$19,443,222. would have been reduced and the rate per cent would not have been probably much affected; whether it would have been slightly increased or decreased I wouldn't want to say off-hand; but it would not have been much affected either way.

Q. What do you have to say; you say it would not have been much affected?

A. Not more than one-tenth of one per cent.

Q. Would it be safe to say it would not wipe out .15?

A. Yes. Of course it is fair to the Company to say that a small return in that earlier period might be considered as somewhat more important than a smaller recently, if you are going to compound a return; but it is not customary to compound in that way, even preferred stock dividends. If you get what you have originally been promised in some form that is cumulative, you do not generally get interest on it also. Furthermore it appears to me that as handled here, giving them the full benefit of what they claim the first of January, 1895, is quite a fair method of treatment. In other words, let them have, as I put it here, the investment as they computed it without taking depreciation out and give them interest and profits on it up to date.

Q. And in that way you worked out the conclusion that is found here on page 48?

A. Yes.

Q. Now at the bottom of page 48 you say something about dividends; I wish you would enlarge upon that a little and state into the record what you have to say about it?

A. The dividends paid prior to 1895 and the interest was very small, and since then likewise. The interest had been paid right along on all the bonds, the dividends were small and scarcely have there been any since 1894, I believe. But the bonds bearing 6% for quite a while and now 5%, together with the net earnings appear to have paid for the plant. As I stated here the \$800,000 preferred stock contracts bearing 6% issued in 1906 and accumulated surplus today of over \$300,000. has been the equivalent of good dividends on the property from the start, so far as not paid for by outstanding bonds. On March — 1906 these bonds amounted to \$685,000 bearing 5% interest, and the preferred stock contracts at 6% issued then, amounted to \$800,000 or a total of \$1,485,000 interest bearing securities. As I figured it, the net investment at that time was only \$1,027,802, which you will find on page 47 for that period.

Q. So that the dividends, whatever there were, if they may be called dividends, was included in the interest bearing securities that the stockholders of this company received?

A. Yes. There were \$800,000 issued of 6% preferred stock contracts which did not represent any immediate investment in the plant, but appeared to cover the investment that had been made in the past out of the earnings. Since that already bore interest at 6% it was in a way a payment for dividends not received in the past.

Q. Now turning to page 50 of your report, do you there to some extent deal with the cost of reconstruction—on pages 50 51, 52 and 53—I wish you would give us the benefit of your judgment with respect to the cost of reconstruction?

A. The attempt is here made to fall back on the book statements about the cost of the property. On page 50 I state how Mr. Baehr estimates the cost new without overhead, of the works and office furniture as \$504,891. The books had shown a little more than that \$525,274. as the cost; and is a difference of only \$20,000 or 4%.

3733 Q. This \$504,891. that you use of Mr. Baehr's computations is without overhead charges?

A. I just said so here. It is what he calls his base figures. It includes as I understand it, some contractor's profits on machinery and apparatus furnished, but did not include what is generally known as overhead. Then as to the meters the books show a cost of \$187,755.93. Mr. Baehr's estimate, without overhead charges, was \$206,472. or about 21% more. There is a larger difference there than in any other items. On the two items, works and meters combined, the difference is largely neutralized. The books show a cost of \$713,030, while Mr. Baehr has \$711,363, a difference of only \$1,700, or less than one-fourth of one per cent. It is a remarkable evidence of close approximation by Mr. Baehr I think, and confirms also, I think, the accuracy of the books and records and tends to establish the fact that the over-head charge either was not as large as Mr. Baehr estimated or was paid for in operating expenses; probably something of both. It also confirms I think the position taken by the Wisconsin Commission that 12% is ample for over-head charges; at least that the larger amount by Mr. Baehr is too large.

The MASTER: Mr. Randolph's was 20%?

A. Yes.

Q. Now, the next is house and street lamp service?

A. The books show \$284,129.60; Mr. Baehr gives the cost new with paving \$375,453, but deducting the paving given by him \$42,322. there remains for the service, independent, \$33,131. His paving was 11.272 per cent of his total reproduction new value, and deducting this from his total overhead on services and paving of \$83,433. there remains as the overhead properly apportioned

3734 services \$74,028.43. The services then without overhead or paving estimated by Mr. Baehr at \$259,102.57 or \$25,000 or 9% less than the books show to have been the cost. This may indicate the discontinuance of some services or street lamps, or it may indicate that a very small portion of the services were laid under pavement originally.

Q. Now right at that point, is it possible to find those figures, the figures you have given here \$259,102.57 without a careful working out of Mr. Baehr's tables and schedules?

A. I think one has to go through some such process as I have done here.

Q. The separation is not made in the report so that it can be ascertained without careful examination?

A. I didn't see any way getting at it except this way. This matter of services is along the same line as that of the meters and works already referred to. There is a remarkable uniformity between the book cost and Mr. Baehr's figures, when you get out his overhead and pavement.

Q. Did you take up Mr. Lea's figures and analyze them the same way?

A. Yes; I did not go into his figures quite as thoroughly because I did not have the time.

Q. What did you do?

A. He gave the investment of the last five years on services as 26.263 of the total investment if I understood his method of computation. Now the books show a cost new of services the past five years \$74,263.59. Now if this is 28.263 per cent of the total investment it would show a cost on the basis of the last five years of construction \$262,758.15 or only \$3,000 more than Mr. Baehr's estimate without overhead and \$22,000 less than the total book cost.

3735 Q. That is, his figures, if that percentage you worked out there is correct, would show \$22,000 less valuation than the book cost?

A. Yes.

Q. Now, Professor Marks—did you take up his method?

A. He reached the conclusion that the buildings and contents, yard structures, in other words, the works, amounted to \$482,639. new, or about 12% less than the books show to have been the cost of all that property, to-wit, \$525,274, but if the stable equipments are added, and I think they should be, which he gave as \$15,192. for these matters, then the difference is only about \$28,000 or 5½%. Professor Marks included in his estimates all overhead. Some of the property included in the book cost has entirely disappeared, such as the first holder.

Q. I suppose there are numerous smaller items and apparatus down there that have disappeared?

A. Yes.

Q. Either by actually wearing out or obsolescence?

A. Where it has not disappeared as in the case of the old gas *gas* works, it has been so nearly scrapped that it practically has disappeared.

The MASTER: They eliminate these old gas works entirely?

A. Yes, but it has not been eliminated from the book cost.

Q. Now, Mr. Marks estimated the meters?

A. He estimated the meters new \$220,000 or \$33,000 more than the book cost, while his house and street lamp services he esti-

3736 mated at \$293,300 or \$59,300 more than the books show. Combining the two items including his overhead—all his figures include overhead as far as he allowed it, it is \$513,672, while the books show a cost of \$471,885.53. So there is a very marked agree-

ment all through between these figures.

Q. That is when you eliminate—

A. From Mr. Baehr's figures the overhead and paving. In case of street mains Professor Marks allowed \$652,947. Mr. Hall finds the book cost \$649,750. Mr. Baehr's estimate of \$1,346,823. is reduced to \$774,577.78 if we deduct his paving allowance of \$350,939. and his overhead on the mains alone of \$221,306.22.

Q. Does that figure \$221,306.22 represent the overhead charges in Mr. Baehr's report on mains alone?

A. Yes.

Q. Does that figure appear in the report or did you have to work it out?

A. I had to work it out, if I recall; yet I think that does appear.

Q. Did you have it worked out carefully for you?

A. Where it appeared in his report I took it exactly as he had left it without any effort to work on it further.

Q. Now, will you proceed with your explanation of page 52?

A. I then attempted on the mains to take the unit costs of the last five years as given by Mr. Hall from the books and where he did not give any figures, as in the case of the smaller mains, three inch and under, I used Mr. Baehr's estimate of that without overhead or paving, and in that way taking the cost for everything above 3 inches, and of course that is nearly all the investment, I reached another set of figures of the cost of the mains on the basis of construction cost of the last five years and that is \$654,150.65; and it would appear as if it were proper to apply such a method to the system if we did not take into account paving. The new mains doubtless were mostly laid before paving, as the old mains were.

Q. How does that total compare with the total book cost 3737 as found by Mr. Hall?

A. It is within \$5,000 of it, less than one per cent. In other words, this total \$654,150.65 or the duplication cost on the basis of the last five years is to be compared with \$649,750.66 shown by Mr. Hall to have been the total cost of the mains. I put those all together in a table on page 54.

Q. Turn to page 54 and explain the table.

A. The first column of figures shows—

Q. Read them into the record.

A. Perhaps I had better read across. The meters shown by the books of the company cost \$187,756. Professor Marks appraised them new at \$220,298. Mr. Baehr appraised them new, omitting overhead charges, at \$206,472. The duplication cost on the basis of the past five year prices is \$206,997.

Q. Now as to services?

A. Perhaps I ought to stop there and say that I shall refer again to meters later as to how that figure was made up. As to services the books of the Company show \$284,130. Professor Marks' appraisal

is \$293,374. Mr. Baehr's base figures without paying or overhead, \$259,103. On the basis of the last five years \$262,758.

Q. Now as to mains?

A. As to mains, the book cost is \$649,751. Professor Marks' appraisal \$652,947. Mr. Baehr's base figures, without overhead or paying, \$774,578. Duplication on the basis of the last five years' costs \$654,151. That shows the total according to the books of the Company up to that time, aside from works and office \$1,121,637. Professor Marks' appraisal was \$1,196,619. Mr. Baehr's appraisal without overhead or paying, \$1,240,153. Duplication on the basis of the last five years' cost \$1,123,903. To my mind that is a very wonderful similarity between costs arrived at so independently.

Q. Now as to the works and office.

A. They are shown by the books as being \$525,274. Professor Marks' appraisal \$497,831. Mr. Baehr's, \$504,891, without overhead and of course the land is not included in the works. No attempt was made to determine duplication costs on the basis of the last five years as it seemed to me there was not quite enough data at hand for that. The total is given therefore in the following way: Grand total, the books of the Company showed aside from land, \$1,646,911. Professor Marks' appraisal \$1,664,450. Mr. Baehr's appraisal, without land, paying or overhead, \$1,745,044. There is no attempt to give any grand total.

Q. You did not attempt to carry out the works and office on the question of duplication for the last five years?

A. No.

Q. Now this table is explained further on page 55 of your report?

A. Yes.

Q. Is there anything further you desire to say with respect to the matter found on page 55 as to meters?

A. I introduced on page 55 a further analysis of how the meter duplication costs were obtained.

Q. I wish you would go through that for us?

A. I had started on my table, using the number of meters and each size given by Mr. Lea before I noticed there was a slight difference in the apportionment of the sizes between his table and Mr. Baehr's, but the total did not seem to vary, and the differences were too slight, so I adhered to Mr. Lea's table, although I did use in one case Mr. Baehr's figure. I did not use the number of meters given by Mr. Hall, because that seemed to include Valley Junction, probably included in the \$45,000, but not all perhaps, but that was not included in the estimates of the others. Now the unit cost of meters—there is a mistake here where it says "are those not given" it should be "are those given".

Q. The word "not" should be stricken out?

A. Yes. The unit cost of meters employed are those given in Defendants' Exhibit 30, schedule 5, page 3, on page 55 of my report. There are certain meters, 66 meters of certain sizes where the unit cost were not given and I used Mr. Baehr's base figures. Now there comes something which I obtained in a different way.

Q. Explain that, please.

A. The unit cost did not include freight and day before yesterday, I think it was, I asked Mr. Sangster to go to the Company's office and see what he could find as to recent freight consignments and costs. And he came back with certain figures that seemed to compute about 40 cents on certain consignments, and I took 45 cents. Then locks, as to prepayment and standard meters seemed from the books to be \$1.50; I think it is high. I think it is possible to set six or eight meters a day easily and the material necessary to go with it, I should think should bring the setting down to a dollar. But I allowed the figure of \$1.50 because I didn't want to err on the side of being too low. I reached the unit cost for each size of meters as on an average of \$1.95 for freight and setting. Of course it would be more than that in the very large sizes, and less in the smaller. In the case of prepayment meters fifteen cents is added for locks etc. These unit costs were applied to all the meters, and 853 are in stock and 3740 strictly speaking the cost of setting should not have been applied. That gave a further increase of \$1,300, so that the figure \$206,997. for meters based on the prices of the last five years appears to me a little high, approached in this way; yet there is an agreement with Mr. Baehr's figures so close that it may indicate on the whole, the figures of the two being so near together, may be correct, although at first I was inclined to believe that it was a little high for setting, and this allowance for meters in stock should not of course have been allowed.

Q. On page 56 is a table showing just how you arrived at your total?

A. Yes, that is merely a summary of the application of the unit costs to the meters.

Q. On page 57 you deal with services?

A. I deal with that as I previously explained; that is rather a repetition.

Q. On page 28 you deal with wrought iron pipe, I wish you would explain that table to the Master and just what is covered by the table in the center of the page?

A. On all sizes except 3 inch and under, and 14 inch, the book costs are given.

Q. That is on page 58 of the report?

A. Yes. There is a typographical error in repeating the figure 45.30 unit cost per foot; it belongs opposite the 4 inch, if any figures put in there under the 3 inch.

Q. That is, the first 45.30 should come out?

A. And 36.01 should be substituted. It does not change the total. It is only a unit cost per foot. That unit cost per foot was obtained by reversed prices. The first line is not obtained by Mr. Hall. 3741 It is obtained by taking Mr. Baehr's total and divide it by the total number of feet.

Q. And this table shows how you worked out the final result \$654,150.65, the figures that you have used in your former tables and in your testimony up to this time?

A. It is entirely based upon Mr. Hall's report as to the unit costs per foot during the last five years, with the exception of the first line.

There were no 14 inch unit costs given; there were only 622 feet of it, and I applied to it the unit cost for 16 inch.

Q. I note on that page you refer to the number of feet of pipe that is still without any paving over it?

A. Yes.

Q. And you give the number of feet as 522,110.

A. Yes; those figures I have here, they are not very different from the figures that the Judge recalled yesterday as having been given by Mr. Moul. I think the percentage would work out just about as stated yesterday.

Q. Now on pages 59 and 60 are found some comparisons of investment costs which are self-explanatory, are they not?

A. I believe they are. I wish to make the point merely that there was no selection of companies but every company was taken above a certain size. There are seven companies next in size to Boston which were taken.

Q. Take the matter that appears on page 60 and let us know what you worked out of the table as it appears there?

A. The sales were given—

Q. Take Cambridge for instance, and the figures following that name represent the sales in feet of gas?

A. For the last year for which we have any reports.

Q. And the next column, what does that represent?

3742 A. The amount of assets reported by the Company to the State Commission.

Q. And the same explanation would follow the figures as to Fall River, Springfield, Worcester, etc.?

A. Yes.

Q. And the total of \$3,968,475.62 represents the sum of the sales in those towns?

A. Yes.

Q. And \$13,964,600, the sum of the assets of the Gas Company?

A. Yes.

Q. Out of that, what average do you find per thousand feet?

A. \$3.52 per thousand feet.

Q. How would those figures compare, and what application would you make of them to the Des Moines situation?

Objected to on part of complainant for the further reason that this is incompetent for the purpose of showing costs in Des Moines and being a comparison with the situation here and the alleged statements in some published reports, which certainly cannot be a proper basis for determining the value here. We ask that this objection shall apply to everything relating to the Massachusetts reports and also other statistical matters taken from various sources and set out here.

The MASTER: The same order is made as to the objections heretofore made.

A. The Des Moines Company, if it had the same assets per thousand feet sales as the average of those seven Massachusetts companies, would have \$1,872,608.

Q. As worked out from a comparison of these Massachusetts Companies?

3743 A. Yes. If we take, however, Fall River, the only exclusively water gas plant, the assets there 2.90 this would be \$1,542,774. for Des Moines.

Q. All you claim for this, as I understand it, Professor, whatever it is worth as a matter of comparison?

A. It is set out here and it is stated at the close that it is not conclusive, but I think it is a comparison of some use and help.

Q. On page 61 you deal with the operating expense and have set out some figures and tables, I wish you would explain?

Mr. GUERNSEY: We make the further objection to the testimony as to operating expenses, and applicable to each portion of the testimony, that it does not appear that the witness is competent, because it does not appear he ever had any practical experience in the operation of any gas plant.

The MASTER: The same order is made with reference to the application of this objection as heretofore.

A. The operating expenses are next taken up, and first the manufacturing cost, or the cost of gas in the holder, which is 29.75 cents per thousand feet in 1910; per thousand feet made, or 31.1 per thousand feet sold. The difference, 1.35 cents is due to leakage and unaccounted for gas.

Q. What did you find with respect to this manufacturing expense from your examination and investigation here as to whether they were rising or falling or had in the past been rising or falling?

A. In the table at the bottom of the page, 61, I compared 1910 with the average of the previous four years and show that the repairs were considerably higher in 1910; they were abnormally high. It
3744 is further proven by a fact not mentioned here, that Mr.

Baehr in his estimates of the future manufacture of the plant have lower repairs.

Q. Oil had fallen in 1910 to 4.26 cents; that is, it was that much below the average for the four years?

A. Yes, there has been a large fall all over the country, especially in the west since the new wells in Oklahoma, Indian Territory, Kansas, Mexico and Texas. The other expenses have fallen slightly.

Q. The manufacturing expense, as distinguished from other expenses, what do you have to say as to whether or not they have been steadily going down?

A. They have been steadily going down; the expense of labor, coal, boiler fuel and generator fuel have been slightly falling; so that the cost as a whole in 1910 was lower than the previous four years, and that had not been noticed for the first time then; there had been previous experience which I give further down the page. There is a statement here in the middle of page 62 that should be slightly added to. I stated here, if we go back to 1904, and I should say to 1904 and 1905.

Q. The figures 1905 should be added there?

A. Yes, if we go back to 1904 and 1905 we find the total manufacturing cost was 42.25 and 39.28 respectively per thousand feet of gas made, and somewhat more per thousand feet of gas sold. If we go further back to the only other point of which I have infor-

mation, 1891 to 1894 inclusive, then the figure was 51.6 per thousand feet sold. So we have a decline from 51.6 in that four years to about 40 cents in the two years 1904 and 1905, 34 cents in the next four years and 29.76 cents in 1910.

Q. What does that indicate as to the cost in the holder,
3745 whether it increases or decreases as the sales of gas increase?

A. With the sales of gas and the improvement in the art which is being made, there is this tendency to decline in cost, which is endorsed, I notice, by Mr. Lea in his estimates in the next six years, which I refer to on page 62; he gives a slight decline.

Q. Turning to page 63, you have set out there some statistics showing the percentage of unaccounted for gas in numerous cities and towns?

A. Yes.

Q. What did you find the percentage of leakage to be here in Des Moines of unaccounted for gas?

A. The Company's witnesses gave it as 4.31 per cent and spoke of it as being lower than any other cities, most other cities in Massachusetts. They referred to many of these same cities and the same reports from which I took these figures.

Q. What did you find the average to be?

A. Well the average of the rates of these eleven cities was 4.28.

Q. Net rates?

A. The rates of leakage unaccounted for. About the same, just a trifle less than Des Moines.

Q. Now, Professor Bemis, turning again to defendants' Exhibit 43, your report, page 64, you deal with operating expenses other than manufacture and leakage?

A. Yes.

Q. On pages 64 and 65 is there anything on there that is not self-explanatory?

A. I think not.

Q. Then we will go to page 66; you deal on page 66 with donations and bad debts. There is nothing there but what could
3746 be readily understood?

A. I think so.

Q. On page 67 you deal with rate litigation expenses; what do you have to say whether you set forth there your views with respect to allowing that sort of an item to be included in investment or value for the purpose of rate making?

A. Yes, I do.

Q. At the top of page 67 the year 1909 should have been 1911, in the sentence "the city of Des Moines fixing rates for 1909 and subsequently", that should be 1911?

A. Yes.

Q. Now on page 69 you deal with expenses other than manufacture and leakage and show what you term to be an abnormal condition for 1910?

A. Yes.

Q. And the matter appearing on that page is fully explanatory?

A. Yes.

Q. The same is true of page 70?

A. Yes.

Q. Now on page 71 you deal with the profits of the Des Moines Gas Company at 90 cents. I wish you would state briefly just what you worked out on pages 71 and 72 and the rate of return you find under the 90 cent rate and how you get at it.

A. At the bottom of the page the matter is summarized—

Q. I wish you would state that into the record.

A. Following Mr. Hall's computations of net revenue on the basis of the manufacture cost and leakage of 1910 but on a four year basis in one column there being four years prior to 1910; on a five year basis in the second column, which includes 1910, for all costs
3747 excepting manufacture and leakage. The first line, the net revenue \$145,173.06 on the four year basis; and \$135,863.22 on the five year basis.

Q. I notice you add a figure for adjustment; I wish you would state where you got that figure?

A. That I add for adjustment to the net revenue as estimated by Mr. Hall \$7,237.01 on the four year basis, and the same amount on the five year basis, making a total of \$152,410. on the four year basis and \$143,100. on the five year basis. The adjustment comes from three facts or three changes. The accident claims and expense on account of accidents are increased above the average of the period as given by Mr. Hall to include the payment of the accident claim in the first two months of 1906 for some claims accruing before that, and the amount that is thus added is .16 of a cent on the average sales of the entire period; and the taxes are increased by .44 of a cent to cover the fact that the taxes in 1910 are higher than the average before that for the previous four or five years; not higher than it had been at one time, and that made an addition of \$2,340.76 for the one year, and the total increase of expense, \$3,191.95.

Q. Is that the addition to the expense?

A. That is the addition. On the other hand the depreciation allowance is reduced from six cents a thousand feet to the amount found necessary for the sinking fund, which was substantially four cents in the last year. It would have been higher in some earlier years per thousand feet of sales. Taking the exact figure from my own previous table \$21,490.40 instead of Mr. Hall's figure \$31,919.46 there remains a net reduction of the depreciation allowance of \$10,-
429.06.

Q. That would represent the additions?

3748 A. That would represent the addition to revenue.

Q. Rather the reduction?

A. So the net reduction in expense from this readjustment is \$7,237.01 and that is added to the net revenue, and as the expenses become reduced the net revenue correspondingly increased.

Q. Those totals upon your method would work out what return?

A. On the investment of \$1,566,865. it would work out on the four year basis 9.61 per cent, and on the five year basis 9.13 per cent. Then I show that those profits would be 8% on the four year basis on \$1,905,126. and on the five year basis it would be 8% on \$1,788,753 and show that on other percentages; what it would be or

what it would show at 7% on \$2,191,572. on the four year basis, and 7% on \$2,044,289 on a five year basis, and 6% on \$2,540,168 on a four year basis, and 6% on \$2,385,004. on a five year basis. The profit per thousand feet of sales of 1910 is 28.65 per thousand feet, on the four year basis; 26.9 on the five year basis. In the parenthesis at the last line I see the figure, for sales was given 531,991, and it should be instead 996.

Q. Did you have any time, Professor, to check up this typewritten part before we called you here?

A. No, it was finished about breakfast time yesterday morning and I had not read it over last night. I was tired and I did not check it over then. In fact I did not read it last night.

Q. What do you have to say as to whether or not, taking the four years, leaving out the year 1910, and then adding to it two prior years, whether the averages run along so as to indicate to you that the four years would cover a period of operations that was normal?

A. The four years prior to 1910 are very much like the
3749 six years prior to 1910 in all matters outside of manufacturing, leakage and taxes. While the six years are about the same in these respects in distribution in general and all these expenses we are now talking about.

Q. On page 72, the second paragraph, you deal with the increase in the value of the land and work out what you claim to be the proper method if an increase in land is to be allowed?

A. Yes.

Q. And show the increase should be added to the revenue as earnings of the company?

A. Yes.

Q. And the matter is self-explanatory?

A. I think so.

Q. On pages 73, 74 and 75 you deal with the market return on bonds. I wish you would state briefly just what conclusion you reach from these quotations?

A. I used the quotations at the time I made this up, which was when I was here before and in my stay in Chicago afterwards. I took the first week in August and took the Commercial Financial Chronicle, the bank and quotation section in that period, and perhaps in a few cases supplemented it with what I could find in the Progressive Age, but practically everything came from the Financial Chronicle.

The MASTER: I do not see any Iowa companies here?

A. I gave every five per cent bond I found of an artificial gas company. Des Moines being represented through the United Gas Improvement Company, their bonds are not on the market, owned by the U. G. I. As to other companies they are probably small and not
quoted on the stock market; they may be locally quoted.

3750 Q. You quoted everything you could find?

A. I believe I included everything; I aimed to do so. I stated here that I omitted one company on page 75; that is Toledo, because of exception- conditions, owing to its street railway portion of the investment, has brought down the rest. There are 97 companies represented; 125 securities, 5% bonds, and the average quo-

tation was 97.6 per cent. I can file with the testimony, if you wish, that copy of the Commercial and Financial Chronicle.

Q. Now on pages 76 and 77 you deal with these bond issues and market quotations, and the matter set out on page- 76 and 77 is self-explanatory, is it?

A. Probably.

Q. I wish, if you care to say anything about it, you would?

A. I don't know that it is necessary.

Q. From your examination of these quotations and basing your answer on your experience in the numerous cases you have referred to, and upon your general experience over the years that you have observed the stock markets and investment in stocks and bonds, about what rate of return is usually received by the holder of stocks and bonds in a fairly profitable business?

Mr. GUERNSEY: I want to make the further objection to that because it is irrelevant and immaterial, and because it is not limited to the gas business; further it is incompetent because it asks the witness to determine one of the ultimate legal propositions involved here; and further it is incompetent because it does not appear that he knows.

The MASTER: The same order is made as to the objections heretofore made.

3751 A. I have had occasion in other cases to make similar tabulations and the results were not strikingly different. In other words, 5% gas bonds are usually selling in the market—I have given here the prices bid not prices asked—at a very slight discount. They usually run from 95 to 100.

Q. How about stocks of gas companies and other similar companies; what is the usual rate of return as shown by these quotations and as you know from your experience with stocks and bonds upon the stock that is considered and used as the basis for arriving at the par value of the stock?

Complainant interposes the same objection last above made.

A. I have in the same way frequently tabulated in the last ten years the return to the investor buying at current quotations stocks and sales of bonds of gas companies, and it is rare that you can go into the market and do better than a 6% return on stock, or 5% on bonds. There may be a 3% discount there.

Q. Take the financial market, if that is a proper term, and for a period covering recent years, the last two or three years, take a gas company's stock, or a similar public service corporation, that is earning a net return of say 6%, what would be the value of the stock as fixed by the stock market and by men generally who deal in stocks?

Complainant interposes the same objection last above made.

A. You mean net return to the investor?

Q. Yes, sir.

A. He will not usually be able to do better than a 6% investment.

Q. Suppose you were fixing the value of an investment in a share

of stock for the purpose of quotations and you should ascertain as the basis of your judgment as to its value that the property, the plant was earning a net return of 6% on that stock, what valuation would you give to the stock?

A. If the probability was that would be paid out, if it were a dividend paying property and then if the dividends were pretty certain to remain at 6%, it would be rather difficult to pick it up at par. If, however, the dividends ultimately increased to seven the par value, the market value would correspondingly rise.

Q. In other words, if I understand you, a share of stock that is earning in one of these public service corporations anywhere in this country, produces a net return to the holder of 6%, is quoted and ought to be quoted on the market at at least par?

A. As a matter of fact it is quoted at par.

Q. Now take a case, if you were going to make up a market quotation for the use of the public, or if you were going to ascertain the value of a share of stock for an investor who had employed you to ascertain the value and you found that the stock in the particular plant or corporation was earning a return of five per cent on par, what would you say as to that share of stock on the market and what the quotation ought to be and what would you quote it at?

A. Of course, in this as in some other questions you ask, you couldn't really answer fully without taking into account one or two other factors. One would be whether the stock and bonds were sufficiently near to the physical value of the property, so that in any question that might come up, of rate regulation, the company could show its real investment was about up to these securities, and therefore that the rate would not fall, probably below a return on the investment; another question would be whether the company had been paying these dividends for some time and was likely to continue to do so.

3753 Q. What I am trying to get at in my awkward way, is the per cent of return that investors generally throughout the country accept and do receive upon their money invested in the stock of public service corporations, in order to fix a par value in the judgment of the investor and the stock market makers and all that sort of thing?

A. I should say about 6%.

Q. And what do you have to say as to the effect upon the general market value of a stock or shares of stock upon which there is a regular and continued return of over 6% covering a period of years?

A. It usually sells at a premium.

Q. That is to say, the effect of that condition would be to increase the value of the stock above par?

A. Yes.

Q. Do you know of any class of securities, either stocks, bonds or mortgages or other evidences of indebtedness of service corporations or any other character of institutions where more than a six per cent return is expected and received continuously?

A. Why there are companies that are paying dividends in excess of 6% and the stock in these cases is usually much above par.

Q. And the investment is correspondingly larger?

A. Yes.

Q. That is to say, for every dollar you go above par the holder of the stock on the theory of the stock investments has that much more of an investment in the property?

A. For example, the Massachusetts Commission has under the law to pass upon all these securities, and they fix the price at which the stockholder can take the stock and the bond, and if he does not take it at this price, it must be sold on the market. The price is 3754 on the basis of 6%.

Q. There are numerous states now in the Union, are there not, where the state has undertaken to regulate the issuance and sale of stocks and to regulate the return that may be received upon the stocks?

A. Yes.

Q. Do you know any such cases where the rate of return is figured above or allowed above 6%.

A. I don't think of any. I am thinking just now of another case in Toronto. There they allow and pay 10%, but all their stock must be sold in the open market at auction, and it is selling at 1.90 to 2.00; so that the investor only gets out of it five to six per cent. A very thorough investigation was made in Cleveland and the stock was fixed at 6% and never can exceed that. The fares can be adjusted in certain limits and not to exceed four cents. These 6% stocks are now selling at about 100 or 100 and a quarter.

MR. GUERNSEY: You mean stock in the Cleveland Street Railway?

A. Yes.

Q. Is there any such regulation in Cleveland or any other cities you know of as to the rate of return upon bank stocks?

A. No.

Q. As to how much a man may make on his stock in banks?

A. No.

Q. Or any manufacturing establishments like the Casket Company that makes the coffins we talked about here in the beginning of this hearing?

A. The fact is these public securities, they are accompanied with certain, more or less practical guaranties against competition, 3755 and that the rate shall be sufficient for a fair return on the actual investment. There is no, perhaps absolutely legal guaranty; there is pretty nearly that in the tendencies of to-day.

Q. When you use the term guaranty do you refer to actual personal or written guaranty, or to a guaranty of conditions, or rather conditions making the guaranty?

A. Conditions, and the tendency of public thought. The tendency of thought in the country is against competition in these things, tearing up streets is becoming such a nuisance—that is another protection to a company.

Q. For instance, you take the Gas Company here; the undisputed record in this case shows that it already has laid under the streets of this city 180 odd miles of mains and almost half of it, as you have shown, and I think is undisputed, under pavements; so that to lay

new mains, for a new company to come here and do that by going through the present pavement, isn't that a condition that amounts to a guaranty almost against competition?

Mr. GUERNSEY: We further object to this question on the ground that it is not a matter of expert testimony, but a pure matter of argument, and is not something upon which any witness could properly testify.

The MASTER: I think that is wholly for the court. But I am perfectly willing to hear his opinion about it.

A. Well, I believe it in a protection to a company, a very large protection.

Q. And was that one of the things you had in your mind when you used the term guaranty?

A. I stated it here somewhere in the report, and I think I mentioned it as not a legal guaranty but a practical guaranty; no
3756 legal guaranty in most states; in a few there may be. The tendency of thought is altogether against competition and rather the tendency is to regulate rates rather than establish rival companies. That is one reason I think why those securities are quoted as they are in the market and that there is a certain degree of stability to these companies.

Q. The matter on page- 78, 79, 80, 81, 82, 83 and 84 covers quite generally what we have just covered?

A. Yes; I think on top of page 81 there is a table that might be noticed.

Q. I wish you would explain that table, what it represents?

A. A 5% bond is generally preferred by the companies, even if it sells at a slight discount, than a 5-1/4% bond which would sell at par or a 5-1/2% bond. Yet that is no reason why we can not reckon a return on our bonds. But doing it in a different way as I have illustrated in this table—assuming for the moment bonds are selling at 93, 5% bonds, and 6% stock at 93, although the average of these bond quotations was 97-1/2, but I assume there are some expenses necessary with the bonding company in floating them, and the difference between 93 and 97-1/2 would cover probably all those expenses; so that we may take 93 as a return to the company, although this company has the last two years, the return of 5% bonds, quoted at 95. Taking 93 here as the basis for the bonds, and 93 also for the stock, as I have it, the interest at 5% on the par value of say \$100,000 bonds is \$5,000; the annual dividend of 6% par value of stock, \$6,000; the annual additions to the sinking fund required to redeem \$14,000 in thirty years, assuming that to be the life of the bonds, \$250 in the 4% sinking fund—total charges on
3757 the cash investment of \$186,000 \$11.250; per cent of burden on \$186,000, 6.05. In other words, that is precisely the same thing to the company as if it issued 6% securities at par leaving out .05 of one per cent. On page 83 the third paragraph the year 1901 as used there should be 1911. I did not have time to go over that. On that same page there is a date, 1804, which should of course be 1904 in the last paragraph.

Q. And 1808 should be 1908?

A. Yes.

Q. Now, on page 82, the middle of the page is a table which I wish you would state what it represents and where you got the basis for these figures and the information with respect to them?

A. As stated in the text, that came from the Commercial and Financial Chronicle and the Progressive Age.

Q. What is the Progressive Age?

A. That is one of two gas journals of the country having been devoted for twenty or thirty years to technical information on gas.

Q. What does this table represent as set out here?

Mr. GUERNSEY: We object to this for the further reason that this table appears to be quoted and the witness should hardly be asked to explain what was in the mind of the person who wrote it.

Q. I want you to state what it represents in your report and what you claim for it?

A. In my report I assume a 6% gas stock could be sold at 93. A stock that would net the investor, in other words, a little over 6%. But here are six of the leading gas companies of the United States, including the United Gas Improvement Company, where according to this editorial in the Progressive Age the investor is getting less than 5% who buys in the stock market today. I use a figure higher than that and more conservative.

At this time an adjournment was taken until 1:30 P. M.

3758

1.30 P. M., THURSDAY, September 21, 1911.

EDWARD W. BEMIS being continued on direct examination by Hon. H. Byers, testified as follows:

Q. Calling your attention Prof. Bemis to first the table found on page 43, you remember there was a correction made in the figures at the bottom of the last column of the table?

A. Yes.

Q. Now since adjournment what errors have you found in the totals in the tables on page 47 and 48 and what corrections if any have been made?

A. On page 47 the last line before the final total I think had better be changed to the exact figure that we have just noticed on page 43 in other words to \$170,617.60. Then the total of that group since March 1, 1906, in other words; the final total on the page should be changed in this way, the first column which now appears in the record and the report as \$6,893,284 should be \$7,138,814. The next column, \$752,637.82 and the last column 10.54 per cent. That will mean the same changes at the top of the next page to harmonize with those just made. The third line of the table where it is now, \$6,893,284.00 should be changed on the previous page to read \$7,138,814, the second column third line likewise should be changed to harmonize with the previous page to read \$752,638, the third column should be changed to read 10.54 per cent as on the

previous page and then the totals and average should be changed so that the first column instead of reading \$19,443,222 should read \$19,688,752, the sum of the profits should read \$1,779,686 and the per cent should be 9.04. That is referred to, these percentages are referred to in the next paragraph and therefore in the last full line of the next paragraph at the middle of the page should read which has been 10.54 or an average of 9.04 throughout the thirty four years to harmonize in other words with the table. 10.54 per cent *pr* an average of 9.04.

Q. In the first paragraph of the written portion of the page—

A. The last line beginning with the words months it has been, change the figure to read 10.54.

Q. Instead of 10.92?

A. Yes, or an average of 9.04 where it now reads 9.15. In other words to harmonize with the table.

Q. Wherever that same computation appears the same correction should be made if we have not already made it.

A. Yes. I should like to show on top of page 81 what would happen if the stock and bonds could only be floated at ninety.

Q. Do that please.

A. Then the first line and second line would remain as they are top of page 81, but the third line would require an addition to the sinking fund to redeem which would now be \$20,000, 10 points on stock and ten points on the bonds, it would require \$358.00 on that basis instead of \$250 on the basis of 93. Then the total annual charges would be \$11,358 and that would be on a cash investment of \$180,000 if ninety was realized on the stock and ninety on the bonds and that means a percentage of 6.3.

Q. I don't quite follow you to get the eight on the \$358?

A. That is the annual additions to the sinking fund required to redeem \$20,000 in thirty years.

Q. Instead of \$14,000?

A. Yes, that table I am not speaking of as an error, I am simply showing what would work out at ninety points on the stock instead of ninety three. That means if the stock and bonds could only be sold for ninety without paying for brokerage charges then the investment would require 6.3 per cent—that is the company would be paying 6.3 per cent on the money it got.

Q. Instead of 6.05?

A. Yes.

Q. Turning to pages 85, 86, 87, 88, 89 and 90, you deal with certain statistics and figures under the head Massachusetts experience all of which are self explanatory are they not?

A. I think so.

Q. And pages 91, 92 and 93 carry those computations and comparisons of the Massachusetts case farther and are self explanatory are they not?

A. They are I believe.

Q. Now Professor, basing your answer and letting your judgment rest upon the experience you have had in dealing with gas cases, gas properties, and general experience that you have already related

that you have had in matters of this kind and upon an investigation and examination that you have made of the Des Moines Gas plant, the conditions in Des Moines and upon such other information and facts as you may have secured and about which you have already testified, including those that are covered in your report what in your judgment was the reasonable value of the property of the Des Moines gas company used in the business of manufacturing and distributing gas in the city of Des Moines on the 31st day of December, 1910.

Objected to for all of the reasons heretofore urged against parts of the testimony and because it does not appear that the witness is competent as an expert to answer this question.

3761 A. \$1,600,000.

Q. Resting your judgment upon the same series of facts and the same experience referred to in the former question together with such information as you have secured with respect to the profits of the Des Moines Gas Co., by your independent investigations and by the statements of the officers of the Des Moines Gas Company and such of their books and records as you have been able to examine, keeping in mind the experience of gas companies somewhat similarly situated and keeping in mind also the conditions in Des Moines, the character of this property, the state of efficiency, capacity and all of the other facts and information which you have gathered for the purposes of this case, what do you have to say as to what gas can be manufactured and sold for in Des Moines per thousand cubic feet at that time.

Same objections.

A. Eighty five cents.

Q. I want, Prof. Bemis, an answer to the question limiting it to the cost of manufacture and leaving out the question of profits. What would be in your judgment the actual cost of manufacturing gas in Des Moines under the conditions that exist here and distributing it to the consumer without respect to the question of profits now?

Same objection.

A. But including depreciation allowance?

Q. Yes.

A. Sixty four cents.

Q. Now resting your answer and judgment upon the same facts and information as covered by the former question, you may state what price per thousand feet of gas manufactured and sold would in your judgment furnish a fair return upon the valuation of this property as you have fixed it.

3762

Same objection.

A. 85 cents. I thought a moment ago you asked me the outside price.

Q. What I want in this question is the difference in cents between the cost and the fair price on the whole as you later fixed it in cents.

Same objection.

A. Twenty one cents.

Q. Now Professor, resting your judgment upon the same experience and information with respect to the property of the Des Moines Gas Company, conditions in Des Moines, population of the city, its prospective growth and all the other conditions that you have observed here with reference to gas manufacture and the facts and information that you have gathered together in your report and what you have been able to find from the books and records of the company, what in your judgment could the Des Moines Gas Company furnish gas to the consumers of this city for per thousand cubic feet and make at least a fair return upon the value of the property?

Same objection.

Q. As I understand you are asking in another form the same question of the reasonable price to give a reasonable return and is I understand it right and that be your question I should say again 85 cents.

Q. Putting that question in another way, Professor Bemis, and resting your judgment upon the same facts and same information you may state what in your judgment the Des Moines Gas Company with its present facilities and appliances will be able to furnish gas or ought to be able to furnish gas to the consumers of Des Moines during the year 1911 with a fair profit upon its investment.

3763 Same objection.

A. I should say for that year again 85 cents although the marginal profit will be a little greater than on the 1910 basis.

Q. Assuming for the purposes of this question and resting your judgment on your experience and knowledge of these matters, with \$1,600,000 as the fair value of the property of the Des Moines Gas Company used in the business of manufacturing and distributing gas what return in your judgment would the Des Moines Gas Company receive based upon gas at 90 cents per thousand cubic feet, what rate of return?

Same objection.

A. Somewhat over 9 per cent.

Mr. BYERS: The defendant in connection with the testimony of the witness Professor Bemis offers in evidence defendant's Exhibit No. 43.

The exhibit is objected to as irrelevant, immaterial because predicated upon so called investment costs instead of on the value of the property, the same objection being made to each part of it; and it is also objected to as incompetent because not a statement of facts or of opinions of the witness as an expert on matters of fact, but purely an argument and this objection is made to each part of it; and it is

is also objected to as hearsay and secondary and therefore incompetent, this objection being made to each part of it.

A. I will change my last answer from over nine per cent to over eight, I have not figured it out exactly, but it is over eight and one half.

Cross-examination by N. C. GUERNSEY, Esq.:

Q. What is your present profession of business, Prof. Bemis?

3764 A. Special investigator of public utilities?

Q. When did you cease to be employed by the water department in New York.

A. October 22, I think it was 1910.

Q. And since that time you have had an office in New York as an investigator of public utilities?

A. I have not had an office in what — often known as New York, Manhattan, but at my home, where I have my home and study and my books I conduct in a way an office.

Q. You said you graduated from college in 1880?

A. Yes, sir.

Q. Then took four years post graduate course at Johns Hopkins?

A. Yes.

Q. And there you took up political economy and history and allied matters?

A. Yes.

Q. That would take us to 1884. You had intended then to prepare yourself for work as a teacher?

A. Yes.

Q. And after you had taken the post graduate course you went to Vanderbilt University and talked history and political economy.

A. Yes. There was a little time before I went to Vanderbilt in which I gave courses of lectures in other places. At Amherst I conducted the seniors in political economy from January until July of 1885 or 1886, I think it was 1886, and I conducted courses at Ohio University, at Vassar, Mt. Holyoke, Carlton College and Aldebert, as it was then called in Cleveland and started the University extension work, I was the first lecturer in University extension work.

Q. Then you continued teaching at Vanderbilt University until 1892?

3765 A. Yes, until that summer.

Q. Then for three years, 1892 to '95, you were assistant professor of economics and sociology in the University of Chicago?

A. Yes.

Q. Then for two years you were doing general statistical work for the state of Illinois and the United States government?

A. Yes.

Q. And for several cities. Now what was that statistical work for the cities?

A. During that time I remember having been employed at Albany for several weeks by the New York American at that time it was

called I think, possibly the New York Journal for dollar gas in New York city.

Q. My question was your employment in statistical work for several cities. What cities employed you?

A. I think that was a misstatement, at least I don't remember at the moment. I did statistical work, but just what cities—what period did that cover in my previous testimony?

Q. Then for two years, which was after 1895, I interpolated that it was after 1895, I was doing general statistical work for the state of Illinois and the United States and for several cities. Now for what cities is my question?

A. The work at Albany in connection with New York City which was, however, not paid by the city, but work in connection with an effort at that time made for dollar gas in New York, which was then \$1.25 that is the only work that I remember at the moment of that character, but I realized that that was not exactly work paid for by the city although it was altogether a case of investigation with respect to the city of New York.

Q. Then to get back to my question there was no such cities?

3766 A. I did a good deal of work in that time for Mayor Pingree in Detroit in connection with the work he was doing as Mayor.

Q. That answer the question that far. Now then what was the character of the work which you did for Mayor Pingree, the statistical work?

A. It was not in the shape of formal reports, but I investigated for him at his request the matters of water and electric light in the city of Detroit. The city was then about to adopt the policy of municipal ownership of the electric light plant and I made some investigations for him of municipal electric light plants.

Q. Now it was this statistical work for the state of Illinois, was that this matter you refer to in connection with the street railroad and gas franchises in Chicago?

A. Yes.

Q. What statistics would you collect with reference to the street railroad franchise matter?

A. In the report that was furnished by the bureau there was if I recall right, a financial history of these companies to some extent.

Q. I don't think you caught my question. I asked you what statistics you collected with reference to the street railway franchise there if any?

A. It related to the whole situation of the street railways of Chicago.

Q. I know, but I am limiting myself to your statement you did statistical work there and I want to eliminate the work that is not statistical work and want to ask you what statistics, you in fact collected if any.

3767 A. Statistics of the investment, operating expenses, dividends and profits. I have not had occasion to refer to it for many years, but I know that was the line of work and I re-

member more directly what I did on that case again for the same reason.

Q. Just wait until we get through with this please. Now then did you collect any statistics as to matters we have been referring to in connection with the street railroads, and if so, where did you get them?

A. I certainly did and wrote a report on the subject that was printed.

Q. You can write a report, but what I want to get at is just what statistics you collected with reference to these street railroads and where you got them?

A. I delved into all the old records that I got hold of in the reports of the companies to their stockholders and the data given in the financial journals, data sworn to in the New York Stock Exchange when they listed stocks and bonds, data that I could get by acquaintance with men in Chicago that knew of the financial history of the company. I believe I studied the taxation records and assessments and consulted real estate men, as to the true value of the lands and buildings. I consulted men like Byron J. Arnold with reference to—

Q. You don't call consulting men collecting statistics and data.

A. I asked him for some statistical data at the time and I think he gave me some, bearing on some records in his office, but I do not recall now, I have not had occasion to use it since practically and I do not recall much about it.

Q. What you did there as a matter of fact, was not collecting statistics and data, but was going over the reports of this street railroad and making an argument against the legislation it desired for its franchises?

3768 A. I attempted to do more than that. I attempted to do something a little different from that, attempted to go into the whole history and financial conditions of the company.

Q. And make an argument against the proposed legislation there.

A. I don't remember what I had in the report. I know I did make an argument against it at one time. I was at that time secretary of the Municipal Committee of the Civic Federation of which Lyman J. Gage was president and we made some reports to the Civic Federation on the subject.

Q. Was this the work you did for the state of Illinois, this street railroad and gas work in Chicago?

A. Yes.

Q. Were the books and records of the street railroad and of the gas company open to you?

A. No.

Q. So you could not get any very complete information could you?

A. No, not complete.

Q. Now then what was the statistical work which you claim to have done for the United States government during this period?

A. They printed a monograph of considerable length on the power of co-operation in the United States and its then condition.

Q. I am talking about statistical work?

A. That was full of statistics, gathered from every co-operative enterprise in the country that we could possibly get in this country for information, from co-operative creameries, building & Loan Associations and store and occasional manufacturing enterprises. Also I prepared and they printed another report on the benefit features of American trade unions, their insurance features, which was full of statistics and data that was secured from all over the United States.

3769 Q. Where did you get the statistics on these things?

A. They had never been gathered up to that time and I secured reports in writing of the secretaries of these national organizations so far as they had benefit features, some of them had quite extensive ones like the railroad brotherhoods and some did not have much of any. But what they had I got their constitutions and by-laws and the secretary's financial reports and treasurer's reports. Occasionally there were accounts of the history of these enterprises in the official organs of the National unions, the typographical union, and the German American Typographia and several other of the organizations, union machinist, union National Cigar Makers, carpenters and joiners, National Brick Layers' Union, many of those used the benefit features and they never had been compiled before I did it, been added to since that by other investigators.

Q. That was the statistical work which you did for the United States?

A. So far as I remember it now.

Q. To go back to this work at Albany that was done for whom?

A. Mr. Hearst of New York, owner of one I think then morning paper.

Q. What you expected to do was to furnish ammunition for the newspaper campaign for dollar gas.

A. My work was principally devoted in making some investigation and giving them such information as I could on the subject in New York City as to the reasonable price for gas.

Q. Was it before a committee?

A. The joint committee of the New York State Assembly and senate appointed to take up a bill specially pending.

Q. You were employed then to make an argument before the committee in favor of dollar gas, lower gas?

3770 A. I looked into it and was convinced it was the proper thing and was in favor of it and appeared before the committee several times and argued for dollar gas which was obtained a little later.

Q. As a result of your argument?

A. Oh I don't say entirely, I think it may have had a little influence.

Q. The paper that employed you to do this work was advocating the dollar gas?

A. Yes, that paper and the New York World were advocating it.

Q. How long did you stay in Albany at that time?

A. Well I made two or three trips back and forth from Chicago.

I suppose in all I was there six weeks, but it was in between a longer period, perhaps three months.

Q. Did you make personal appeals to the different members of the committee besides making arguments before the committee?

A. No.

Q. Then you spent the six weeks in preparation for this argument?

A. Yes.

Q. And what were the statistics available at Albany for that purpose?

A. A very exhausted series of reports, one in one volume and one in two or three volumes made in—the first in 1884 and the second in 1885 by the New York Senate and Assembly Committee in connection with the consolidation of the gas companies in New York City that had occurred in 1884. Mr. Youlden, a famous accountant at that time had written many hundred pages of this report as the result of an exhausted examination of the accounts of all companies from 1821 for the start of the first one and the engineering data of the cost of construction and of all costs, some of which had
3771 been built by Mr. Roland, who testified in regard to it. Then there had been some reports of this gas company at various times to the public or to the financial journals, there had been some evidence furnished by the companies themselves in opposing this legislation at Albany. I don't remember now fully of course all I consulted, but everything that came up before in the capitol at Albany or that year or that I could rake up in New York I tried to look through.

Q. Quitting that you continued as a teacher in Kansas?

A. Yes.

Q. Until 1899, is that right?

A. Yes, I was there two years from the summer of 1897 to the summer of 1899.

Q. And then you prepared a paper on gas works in the United States.

A. It was not confined to gas works, a book on municipal monopolies in which electric light, street railway and—

Q. I am not talking about that, I said a paper which you afterwards enlarged into a monograph on municipal gas works.

A. That was done earlier while I was in Vanderbilt, in 1901.

Q. How many municipal gas plants are there in the United States now?

A. I have not looked it up the last few years, but I think in the neighborhood of twenty.

Q. Where can we find a list of them?

A. So far as they existed at the time of the national civic federation investigation they appear in that three volume report.

Q. You don't give us the title of that?

A. No.

Q. It is hard to find it by simply calling it three volume?

A. It is. Mr. Walton Clark has a copy I am sure as he was on the commission.

3772 Q. He is not here and he may have lost it the last twenty years, I don't know.

A. This investigation is only four years old, this is the investigation of the national Civic Federation. Mr. Klumpp was employed by us in some of the work. The secretary of the National Civic Federation who can be addressed simply that way, Metropolitan Building, New York City, can probably send a copy.

Q. There is a copy in the library here isn't there?

A. I am told there is not, I have not looked it up.

Q. I thought you said in direct examination you referred to a copy you had here?

A. A copy was loaned Mr. Byers, as I understand it, by Mr. Hall because he could not find a copy in town and I had none short of New York. I think it is called the National Civic Federation Report on Municipal Utilities, but I am not quite sure. The whole set can be obtained probably if not out of print for \$10.00, the first volume \$1.00 in paper or \$2.00 in cloth I understand the secretary sells it for that, if anybody wants to send for it.

Q. In 1892,—did you start this movement in Nashville for cheaper gas?

A. I am not quite sure I started it, I was very active in it, but whether I can be said to have started it I don't remember. I don't really know. Probably not. I think the movement was started there rather spontaneously and by the Chamber of Commerce, I think, took it up or the Merchants' Association, whatever it is called.

Q. Then the first gas case in which you were employed was in 1892 here in Des Moines?

A. Yes.

3773 Q. And at that time you had had the gas experience which you have stated?

A. Yes.

Q. You testified for the city there as an expert?

A. Yes.

Q. Much as you have here?

A. Well not as fully and I did not prepare a report course.

Q. I mean the same general plan, of course I don't mean the same facts?

A. In a measure, I don't feel that I did anything like as full gave as full or as much study to the question. I came here to the city only long enough to testify if I remember right and went away again.

Q. You testified again in the same controversy in 1894 or '5, simply giving your deposition in Chicago?

A. I think a deposition was taken in Chicago, as I recall it.

Q. Now then you continued teaching down to 1896 in the University of Chicago?

A. The summer of 1895. There was two years I did not teach.

Q. What did you do in the next two years?

A. That was when I was doing this work for the state of Illinois and some work for the United States government.

Q. Then you went to teach again and that was where?

A. That was in Kanass at the State Agricultural college, Manhattan.

Q. That was 1898?

A. Summer of 1897, to the summer of 1899.

Q. 1899 you went to Cleveland?

A. No, went to New York City. Two years I was in New York City, nearly two years not quite.

Q. It was while you were in Kansas that you wrote the book, municipal monopolies?

3774 A. Yes.

Q. Throughout all of those or both of those books you have advocated municipal ownership?

A. Yes.

Q. Your attitude has been uniformly that the public utilities were earning more than they ought to have?

A. Not in all cases.

Q. But that has been the general basis of your argument in favor of municipal ownership has it not?

A. One of my arguments has been profit to the city financially and another argument has been the civic one.

Q. Your argument in favor of municipal ownership has involved constantly for the last twenty years the claim that the public utilities were receiving more than they ought to receive?

A. More than municipalities would receive or attempt to charge if they were running the matter efficiently? I have not always claimed though that municipalities in America were efficient.

Q. Oh I don't want to go into that, that is too much of a side issue. You have uniformly contended that the public utilities were receiving greater profits than they ought to have for the transaction of business haven't you?

A. As a general proposition in a general way I would say yes, always exceptions.

Q. Of course you know a great many of them that have failed don't you?

A. Yes.

Q. And you have been advocating and making these arguments for twenty years any way?

A. I have been on the public side of all these questions,
3775 always.

Q. That don't answer my question, you have been making the arguments I refer to for twenty years?

A. I believe so.

Q. And have been very active in the matter haven't you?

A. Part of the time I have been. Not so much so the last ten years as earlier because I have felt the greatest thing now was to make a success of what cities were undertaking rather than to talk about it.

Q. There was objections while you were in the University of Chicago wasn't there on account of your so called socialistic view in these matters?

A. There was some objection to it at one time, but in connection with the Pullman strike upon the railroads, it was thought that I was not conservative enough.

Q. And your designation for these utilities, the word you have adopted, is monopolies?

A. I usually use the term municipal monopolies although I recognize public utilities is equally appropriate, using it more of late than formerly.

Q. But it is not quite so apt to attract attention and create prejudice as the use of the word monopoly?

A. I don't think monopoly creates as much prejudice now as formerly because more and more it is recognized that these enterprises ought to be recognized as monopolies, natural monopolies.

Q. The word monopoly is obnoxious to the general people isn't it?

A. It has been and is to some extent still, depends of course on conditions.

Q. The title you adopt for your books published 20 odd years ago was municipal monopolies?

A. Yes.

3776 Q. Now you were asked in connection with this book what investigation you made with the preparation of the book and stated that you had, quoting from page 3641, data so far as I could get it upon the question of investment, operating expenses, rates, charges, franchise value stock of the municipal plants in this country. You don't mean to have us understand in the preparation of that book you either had access to or examined the operating or investment records of any large number or any large proportion of the public utilities in the United States do you?

A. I did a good deal in Massachusetts, but not much elsewhere as far as their own records, their records were sworn to and deposited at the State House in Boston for the Commission, had been at that time for a good many years, but outside of that state I had not such access to their own returns except as sometimes given in Wall Street listing the stocks or bonds.

Q. You said on your cross examination and on your direct examination that applications or lists of securities on the New York Stock Exchange were necessarily sworn to under the rules of the Exchange. That is an error isn't it?

A. It may be an error as to their being sworn to, they are recognized in Wall Street as absolutely true, a man I think could be ruled off the Exchange who was caught making a false listing.

Q. What I wanted to get at is whether anybody swore to it or not?

A. I will have to say I don't know that an oath is taken on it.

Q. A man that made false representations in these matters would be treated just as a man who made false representations in other matters if caught?

A. I think Wall Street is more stringent in regard to stock matters than would be in ordinary business.

3777 Q. The fact is that about the only source of statistics with reference to public utilities that is or has been available to you has been these Massachusetts reports, isn't it?

A. You mean up to date?

Q. Yes.

A. Oh no not up to date. I was speaking of the time when I wrote that book.

Q. What states aside from Massachusetts have required reports from public utilities generally for more than a very few years.

A. None in this country. Of course in Great Britain I had access to their reports.

Q. I know, but that is a long way from home.

A. Yes.

Q. I don't recall your saying you were ever there more than three months?

A. I was over there on two occasions three months each and I have their reports or final compilations of them for a good many years.

Q. But all that has been until recently available for statistics has been these Massachusetts reports in the United States.

A. In every case I have been in there has been a good deal produced by the companies, the New York case for example.

Q. (Question read.) Isn't that true aside from occasional cases where there may have been a law suit or something like that? Haven't the Massachusetts reports been the only general source of information?

A. A good deal has appeared in the Progressive Age, in the Gas Light Journal, a good deal has appeared in Miscellaneous reports, occasionally, in United States Census volumes, and in these later cases frequently a great mass of data was made of record in
3778 other states than the one under discussion.

Q. In the gas cases.

A. Yes.

Q. Which case do you refer to where there was such massing of data?

A. In the Consolidated gas case in New York.

Q. They massed the Massachusetts cases didn't they?

A. Emerson McMullen testified as to the experience in decreasing price of gas and the effect on the increased sale in Detroit and Milwaukee?

Q. I am talking about the statistics of gas plants where a man can go if he wants to find compilations of the statistics of gas plants in the United States.

A. You won't find anything to approach the Massachusetts data anywhere else. Of course in the last two or three years you will get a good deal in New York and Wisconsin.

Q. Coming back to the same proposition until within the last two

or three years the only place where any statistics purport to be taken or compiled was in Massachusetts?

A. Yes, I should say so, general and complete in this country.

Q. You went to Detroit in 1899 and took up street railroad franchises values?

A. Yes.

Q. That would be interesting to me, but I don't believe it would be very material in this case so I will pass it. After that you went to New York and opened this clearing house on municipal matters?

A. Yes.

Q. Particularly public utility questions?

A. Yes.

Q. That was called the Bureau of Economic Research?

3779 A. Yes.

Q. That was a municipal ownership organization wasn't it, advocated municipal ownership?

A. Not exactly that, our theory at the time was a clearing house of all lines of municipal work, cost of paving, cost of maintaining and cleaning streets, park systems, water supplies and contracts of all kinds that could be taken up and we worked together along that particular line and Prof. Commons to keep up labor conditions.

Q. Did a question like that have a bearing on the question of whether municipalities were handling the business they did do on a business basis so as to warrant the turning of more business to them?

A. It was used as to the improvement of efficiency of cities. I was very much interested at that time in the league of American municipalities.

Q. Let's stick to this concern, the bureau of research.

A. We were thinking that we could perhaps affiliate with them as a bureau of information for them.

Q. Did this bureau of economic research publish anything?

A. There were one or two monographs published by Prof. Commons on his work. I was engaged in several investigations, one for the State of Massachusetts on the lease of the Boston & Albany railroad to the New York Central and while that data was published in the Boston newspapers there was no monograph or magazine article or anything of a book or official publication of our work.

Q. How long did this bureau last?

A. Two years or nearly so, not quite.

Q. Then you went to Great Britain during this period,
3780 that is the summer of 1900.

A. Yes.

Q. Studying technical education?

A. More particularly what are known as polytechnic institutes or trade schools of Great Britain.

Q. You said on your direct examination that in connection with the work of the bureau in New York, this was this bureau of economic research, as I understand it, during the years 1900 and 1901, you were employed by the cities of Haverhill, Mass., and Springfield, Mass., in gas cases before the Massachusetts gas commission?

A. That was in connection with the work of the bureau. They corresponded with us and asked for my assistance. I don't know just what relation it had directly or officially with the bureau, except that they wrote us and wanted to know if one of us would help.

Q. And there you were endeavoring to cut down the rates of gas?

A. Well that proved to be the result of it. I was employed by the city in a hearing before the Massachusetts Commission in which the city was contending as here for a lower price and I was employed to analyze their reports to the state commission and to testify on the subject.

Q. And you did testify and testified there didn't you that the rates they were receiving were too high, that they were getting more than a fair return and that the rates ought to be reduced.

A. Yes, and the commission did so reduce.

Q. And you did the same thing in Springfield?

A. Yes.

Q. And you did the same thing in Des Moines here? Now let me ask you—let me digress for a minute. Have you ever been
3781 on the other side of this proposition?

A. No.

Q. Have you ever failed to testify in any case where you have testified that the actual operating of the company was too high?

A. I don't know that I have a remembrance of stating that their operating expenses were too high. At the same time as a general thing remarked that the price could be reduced.

Q. Can you name a single case in which you have testified where you have not said that the operating expenses were too high, the actual operating expenses?

A. I don't remember sufficiently to say as to that, as to the operating expenses.

Q. Can you give us a single case in which you have testified in which in order to reduce operating expenses you have not taken one item from one place and another item from another, putting together some low items?

A. I don't think that has been the case.

Q. Well name one of them please?

A. Well I think for example in New York City that was not done.

Q. That was not done in New York?

A. I think not.

Q. Can you name another?

A. Well I think the way it was treated in Boston and Springfield and Haverhill was the principle used previous years and with other cases, I don't think that I picked out we will say insurance from one year and taxes from another and accident claims from another or anything of that kind.

Q. Didn't do the way you are doing here, this is invented for the sole benefit of Des Moines?

A. In Cedar Rapids or in Saginaw where we had the opportunity of using five year periods I think that both Hall and
3782 myself criticised some increase in expense just before the litigation.

Q. Now then in 1901, you went to Cleveland at the request of Mr. Johnson?

A. Yes.

Q. And you were there how long was it, I have forgotten?

A. From about the 20th of September of 22d, somewhere in there of 1901 until the close of 1910.

Q. Is that right?

A. No, excuse me, the close of 1909.

Q. And during that period you were in the wa-er works business?

A. I was superintendent of the city water works in Cleveland.

Q. Now then you said that you made an investigation of the street railways of Columbus?

A. That was before.

Q. That was in the spring of this same year?

A. Yes.

Q. What do you mean by investigation there?

A. All I was able to do there was to get reports of the company and data that they had filed at various times with the state as to cost of their extensions and the city engineer helped me some in regard to their street work, I got such data as I could from the company, they gave me some.

Q. You did that for a newspaper?

A. I did that for the Press Post.

Q. What was the controversy on between the city and street railway at that time?

A. Yes.

Q. And this paper was opposed to the company?

A. It was seeking for a lower fair.

3783 Q. This paper was opposed to the company?

A. It was opposed to the franchise they were seeking.

Q. You were employed by the paper to get ammunition for it?

A. I was employed by the paper to find what I could get on the whole subject.

Q. This was one of those impartial newspapers like the Hearst papers that simply wanted the actual facts and not ammunition for its side.

A. I don't know anything about the ownership or methods, I have not ever read the paper before or since, unless passing through the city perhaps some time I might buy an issue at Columbus.

Q. Now then you went to Cleveland to take up the city's side of the public utility controversy there?

A. Yes, in a measure.

Q. And you devoted several months to that?

A. Yes, three or four.

Q. This was a street railroad and electric light controversy?

A. It was a taxation question of the proper assessment and taxation of all the public utilities of the city and also the question of steam railroads and interurban lines.

Q. Did you have access to the books and records of these companies at that time?

A. Not to any considerable extent. They brought in a great deal of data which they swore to as official from their records and the

officials of the various companies I often conferred with and they gave some information, but there was no attempt made to go into a full analysis of their books.

Q. Well you didn't have access to them did you?

A. No.

Q. Did you have access to any of their books?

3784 A. I think not.

Q. And in September 1901, you went to Cleveland and took charge of the water department there.

A. Yes.

Q. You were there until you went to New York to the water department in New York?

A. Yes.

Q. How many miles of main were there in the water department there in Cleveland when it was appraised as you stated, when you got an investment value of eleven million dollars?

A. I would say in the neighborhood of 700 miles, but I am not sure exactly, I have never thought to look that up.

Q. What was the date of that valuation?

A. 1906.

Q. And you think then there were about 700 miles of mains?

A. My recollection is not very clear on the subject, but I think so.

Q. That would be about how much a mile?

A. Oh at that rate it would be about 15,000 dollars wouldn't it?

Q. Yes, somewhere around \$15,000 a mile?

A. Of course that included the five mile tunnel out into the lake.

Q. Was this investigation made before or after that tunnel was built?

A. After.

Q. Also included the pumping station?

A. Of course, three of them. About seventy thousand services in use.

Q. What was the population then?

A. The population in the census of 1910 was about 560 odd thousand, in the previous census I think it was 382,000, growing
3785 fast in that period, I know the last census was 560,000 in the city limits. We supplied about 100,000 people in the suburbs also, 75,000 say.

Q. The work to which you devoted special attention was you said metering of the city?

A. That and the systematizing of the accounts of the department some reorganization of the business management to get as much efficiency as possible.

Q. And the metering proposition is simply a plan to measure water so that people won't waste it?

A. The primary object of that is of course to accomplish that?

Q. I think you said that in your judgment under your superintendence you brought the plant up to the standard of well managed private enterprises?

A. I believe so.

Q. Now I have gone over this somewhat in detail to get at your

experience either as an engineer or as a practical gas man. Now you are not an engineer are you?

A. No.

Q. You have never had any engineering experience have you?

A. No.

Q. You have never had any practical gas experience?

A. No.

Q. You never have either managed or financed or operated a gas plant?

A. No.

Q. You are not familiar with the details of the operation of a gas plant?

A. No.

Q. You could not tell us how to make gas?

3786 A. Well I didn't try to do that. Of course I know something about it and read a great deal.

Q. Oh in a general way just as we learned by these law suits.

A. Yes.

Q. That is where you have learned about making gas?

A. A good deal of reading and visiting plants. I don't claim to be a gas engineer, but I don't think it would be quite fair to say I have no engineering experience because in the supervision of the water department, I did have a certain type of experience in engineering, but not what would technically amount to technical training.

Q. You did not do the technical work?

A. Not to look into it.

Q. Certainly if I were building a house I would look over what the architects are doing?

A. Yes.

Q. But that would not make me an architect?

A. But the fact being that for ten years you would become something of an architect.

Q. I would learn something about it I hope. Now then you have never bought or sold gas machinery have you?

A. No.

Q. You never have as a practical proposition taken the operating cost of any plant and actually tried them out by operating the plant or watching it as it went along?

A. No.

Q. You never have had the results of such work available for your information except in connection with some lawsuit where they brought in some exhibits showing operating cost?

A. Oh yes; in addition to that I have had the data filed in
3787 great detail in the Massachusetts Gas Commission office and more or less I have had access to the data we got in the investigations that were given for the National Civic federation. there more particularly with regard to English plants, we went into a most complete study of engineering and construction costs on gas.

Q. Do you think that the English results would be a fair criterion to apply to Des Moines?

A. I have not tried to but I think I should add in answer to your

question that the situation is not absolutely different between England and here so that the experience there is not of any help.

Q. Did you ever make an investigation of these statistics except for the purpose of sustaining some contentions in connection with a controversy over rates, the Massachusetts statistics?

A. I have in addition frequently, when I had any spare time on my hands would go into it because of a desire to get all the data I could, keep up abreast of the times.

Q. Have you the results of these investigations compiled in any way?

A. No, but I have great quantities of notes taken on such visits that are in my home in New York.

Q. How often have you visited the office of the Massachusetts Commission in the last five years?

A. Oh I should say eight or ten times and I have employed assistance, clerical help, the secretary in the office there or his assistant and sometimes others to copy for me, complete detail returns of several of these companies.

Q. Which companies?

A. Boston and the seven referred to in this report Cambridge, Lawrence, Lowell, Lynn, Fall River, Springfield and Worcester.

Q. And was the Boston copy done in connection with the Boston case?

A. Since then.

Q. Recently, was done in connection with the New York case?

A. I have a lot of copy in my room in the hotel, the official certified copies of the last reports of four or five of these companies that were made about five or six months ago, four months ago, I was in Boston and engaged to have it done, it was done for me, I have forgotten just how long ago, but in the spring, that was the last I had done.

Q. Was the Boston record copied in connection with the New York case?

A. Yes, I introduced in the New York case a lot of data from Boston in 1906.

Q. So as a matter of fact isn't it true that this information has been collected by you in order to support your contention that gas somewhere or other was too high, isn't that as a general proposition true?

A. I should say that fully two thirds, perhaps three fourths has been gathered in connection with cases, that a certain other proportion, quite a considerable amount has been gathered simply because it came handy to me to gather it and I wanted to get all I could.

Q. So that as a general proposition or as a seventy five per cent correct proposition the information has been gathered in connection with cases where you were trying to cut down the price of gas?

A. It has been gathered in connection with gas cases where I have needed information.

Q. Now is there any case in which you have appeared where you have not urged a reduction in the price?

3789 A. I think not.

Q. So that my first statement was correct that three fourths

of this information has been gathered by you in connection with cases where you were seeking to bring about a reduction in the price of gas?

A. You can put the two facts together if you please, although I wanted to get the information and every time felt I thought I must have it, and it is also true three fourths of the information was gathered in connection with cases in which I was representing the city and the city was seeking a reduction of price.

Q. When were you employed in this case?

A. The correspondence requesting I come on was from Mr. Brennan some time early in the year, I don't remember what month, probably February or March and then I received a statement that the case had been indefinitely postponed owing to some change in court proceedings. Then I received another letter saying they would like to have me come on soon after the 4th of July. I could not come immediately, but I came as soon as I got through with the most important parts of the work in Chicago.

Q. Then your employment began somewhere around the middle or latter part of July?

A. Yes.

Q. Now what have you done in connection with this case?

A. I have listened to most of the testimony, taken notes on some of it, some of it I have read. I have studied a good deal the exhibits put in by the various witnesses for the company and the city, particularly Mr. Lea's, Mr. Bachr's, Mr. Hagenah's, Mr. Randolph's Prof. Marks and Mr. Hall's. They put in a good many exhibits, some of them, some of them only one or two. I tried to
3790 study them all, so far as I had time, somewhat limited time, then I studied the various matters that I refer to in my report such as these stock exchange quotations, the Massachusetts gas reports, I looked over some notes and things I had gathered previously so far as I had them in Chicago at the time I was there. I am somewhat at a disadvantage at long range from home.

Q. Is that all you have done in connection with this case?

A. Well I have testified perhaps to some things which might be considered as included, I visited the gas works one day.

Q. How much time did you spend at the gas works?

A. Well not over about an hour and a half probably. I don't remember, I didn't keep track of the time.

Q. How much time have you spent going over the city?

A. Well I have been upon probably a half dozen auto rides with Mr. Byers and Mr. Brennan, gone over a considerable of the city a little in street car rides and a little in walking.

Q. And how much time have you spent yourself on the books of the company?

A. Well that would amount of course to where I spent it in the office. I have access to no books except at their office and I did not ask for any other. I went there two or three times to ask some question of Mr. Sangster who was there and one day I stopped and looked into vouchers a little *lm* saw he was doing the work.

Q. You have not made any examination of the books, so far as you are concerned?

A. No.

Q. You have omitted one thing haven't you, during all of the examination of the experts, you sat at the table with counsel and aided in the cross examination where it was by the city?

3791 A. To some extent where I was asked to do so.

Q. I assume you did not do it in spite of them. Didn't you during the entire cross examination of Mr. Lea, the entire cross examination of Mr. Baehr and the entire cross examination of Mr. Hagenah at least sit by counsel and continually suggest questions?

A. There were some days in which I did I think, there were other days in which I did not. I think there are one or two or three days in which I was not in the city.

Q. When Mr. Hagenah went on the stand you were not in the city were you when his direct examination was commenced?

A. I think I was not.

Q. You were advised that he had been put on the stand and came here from Chicago to be here didn't you?

A. I don't think I received any message from here to come back or that he was on the stand.

Q. Are you sure about that?

A. Well I am almost positive about it. As I understand it, I left here with the request that I come back as soon as possible. I had a little work I felt I must be in Chicago and I went back and attended to it and came back again as soon as I could. That is my first visit to Chicago after I had been here. Then the second time was when there was a vacation to be taken by the court.

Q. For instance when Mr. Lea's exhibit was offered the city's copy was immediately turned over to you and you took it up and suggested the line of cross examination didn't you?

A. I felt that you are implying that I am responsible for more of General Byers' and Mr. Brennan's work than I am.

Q. Please answer the question, isn't what I said true?

3792 A. I occasionally made suggestions, but I should say nine tenths of all they did was entirely irrespective of anything I did.

Q. You remember sitting here a day at a time and writing questions and handing them to counsel?

A. I remember sitting here writing many days, but I was not always writing questions for counsel. I have a way of working on a case making computations while the testimony is going on.

Q. Do you usually hand that work to counsel while he was cross examining witnesses?

A. In many cases not at all, I remember some days in which I was making computations that had no connection with the witness on the stand and did not go to counsel at all and other times I did such things and handed such things at the request of counsel.

Q. Are you a member of the bar?

A. No.

Q. You have been acting as counsel in this case haven't you?

A. Well technically I don't know what you might mean by the question, if you mean as adviser I could say I have been helping as far as requested to do in a humble way although I don't claim to be a lawyer.

Q. After a month or so constantly in the performance of duties as counsel and advocate, do you find any difficulty in divesting yourself of that character and avoiding argument and so on when you get on the stand?

A. No, because in all these cases I have been doing just what I believed to be the facts in the case and I have had my convictions pretty strong all these years^m but it does not mean the divesting of myself of these convictions in either capacity.

Q. You have had these convictions, and have argued them
3793 all these —?

A. To a large extent, they have changed and been modified somewhat by continual contact with them, but not the result of a night's thought.

Q. This Exhibit 43, was intended by you was it not to be an argument of this case in behalf of the defendant?

A. No, I did not think of it as an argument, I thought of it as my views of the case.

Q. You intended did you not to take up and discuss the testimony of the various witnesses?

A. Not in the way it would be done in a brief for the court. It was rather a summary of the evidence bearing on the views I held showing my thought on the case as the result of all testimonies and exhibits.

Q. You did not know when you were writing this Exhibit 43 that you were writing an argument?

A. Why I suppose some of it can be called argument, but it was expression of my thought and my views.

Q. Now you say in the introduction to it which is addressed to the counsel for the city as requested by you, I have studied the testimony and exhibits in this case. Now as a matter of fact that is what you have studied isn't it, the testimony and exhibits?

A. That is my chief work here, nine tenths of it. That does not mean that I have not brought out the results of previous study of course.

Q. You have not studied the property?

A. Approximately not.

Q. You have not studied the books of this company?

A. No, not directly. I have taken the exhibits and the testimony as showing what the books did contain.

3794 Q. You have taken the exhibits and testimony and you have attempted to weigh it and discussed it in this Exhibit 43 haven't you?

A. Some of the data I have got is not anything that has appeared in the case before.

Q. That is true, that don't answer my question, however. You

have taken the exhibits and testimony and you have attempted to weigh and discuss this testimony in this Exhibit 43 haven't you?

A. Partly that and partly to contribute as far as I could from my own views and thought and data so far as I have time to give it.

Q. And you have not confined yourself to an argument on questions of fact, but have also argued the questions of law?

A. To some extent.

Q. Do you still say this was not intended as an argument upon this testimony?

A. I have not thought of it as such, I had thought of it as a presentation of my views and beliefs of the case.

Q. And do you want to come here and argue these questions of law as well as these questions of fact under oath?

A. Why I consider that my studies of the decision of other cases is just as important as if I had been shoveling coal under a boiler and had gradually risen to a higher position in the work, I think——

Q. Do you think you ought to argue questions of law and questions of fact under oath?

A. I leave to the attorneys as to what questions shall be argued and I have tried to answer them, I supposed I was within my right to present this report. In almost all cases I have been cross examined, if not direct examination, along all these lines.

3795 Q. They have argued the questions of law with you while you were on the stand I suppose?

A. Yes, often. Matthewson often did it in New York.

Q. I guess it was a waste of time.

A. I don't know the supreme court decided it all right.

Q. The supreme court decided on the questions of law about the way you claim they ought not to be decided didn't they?

A. No, I think not.

Q. Do you concede the correctness of the supreme court's decision of the legal propositions in the Wilcox case?

A. I think there are some positions they will change later.

Q. Are you willing to concede that any of the legal propositions announced by the supreme court in the Wilcox case are correct?

A. They are binding of course, they are the supreme law of the land.

Q. I don't mean that, are you willing to concede that any of the legal propositions announced by the supreme court of the United States in the Wilcox case are correct?

A. Why of course.

Q. Now you start your argument here with the statement with the exception of half a million dollars the plant appears to have been entirely built from earnings. Give us the figures from which you deduce that statement?

A. The fact that the difference between the book investment and the outstanding bonds——

Q. What is the book investment you take for that computation. Give it to us in dollars please?

A. The book investment in the neighborhood of \$1,600,000.

Q. Can you give it to us exactly, whatever you took for the basis of this statement?

3796 A. I think it is \$1,667,000 on page 21.

Q. Don't you know what was the basis of this statement in your report?

A. Yes, but I was trying to find the place in my report in which I gave the investment. Investment at the end of the year, average investment given on page 24 as \$1,720,000.

Q. What did you take as the basis for this conclusion which is the first sentence in your report, give us the first figure you took now?

A. That 1,727,000.

Q. Now what was the next figure?

A. The outstanding bonds \$685,000.

Q. That is not the amount of outstanding bonds is it?

A. No, that was the amount in 1906.

Q. I know, but this don't say in 1906.

A. The extensions since 1906 have nominally been paid for by bonds and the earnings have been used to pay off preferred stock contracts, but that is no different in substance from taking—

Q. You are getting away from the question, what was the next figure.

A. \$685,000.

Q. That was the bonds in 1906. Did you use any other figures reaching this conclusion?

A. The earnings I took of course. The earnings on page 48 after deducting depreciation was about \$1,779,000. A large portion of these were represented by preferred stock contracts of \$800,000 issued in 1906 and a good deal of the rest has gone into surplus since.

Q. How many of these preferred stock contracts are not outstanding?

3797 A. About half of them.

Q. What is the present surplus on the books?

A. I don't recall at the moment. There are an increased issue of bonds since then and nominally these bonds have been put into new construction, but practically you can say that the new bonds have paid for the new construction because the entire outstanding surplus is only twenty or thirty thousand dollars if I recall right, greater than that five years ago.

Q. You gave me here as cost \$1,727,000, then you gave me \$685,000 of bonds which is not the bonded debt at the time and the significance of which I do not just understand which you gave me as earnings net after taking out depreciation \$1,779,685. Depreciation was not as a matter of fact taken out was it, that is the depreciation that you referred to?

A. No.

Q. Well how much had we ought to add to that then because that has only been taken out theoretically.

A. In case I should say that the true investment—

Q. We are not talking about that at all, talking about this first

question with the exception of half a million dollars the plant appears to have been entirely built from earnings. Now then the gross earnings would be \$1,779,685 plus that depreciation that has not been taken out wouldn't it?

A. If you don't take out depreciation you have to add it to earnings on the one side and to the plant on the other so it is as broad as it is long.

Q. Don't your figure \$1,727,000 represent some actual figure or is that merely a hypothetical figure which varies according to the method with which you finance depreciation.

A. That represents the profits after taking out the depreciation.

3798 Q. You have got the wrong figure, the figure just given you is the one you told me represented the investment.

A. I am looking at the sum of profits on page 48, \$1,779,686.

Q. How much is that depreciation have you figured it?

A. \$241,000.

Q. Will you add that for me to the \$1,779,685?

A. \$2,020,000.

Q. What is the amount of preferred stock contracts that have been retired out of these profits as you say?

A. It is between four hundred and 450 thousand I think.

Q. Isn't it nearer 389?

A. I will accept your figures if you say so.

Q. That is my recollection. Now deduct that will you please?

A. One \$1,631,000.

Q. That leaves your earnings to be used in building plant don't — except a negligible item of about \$12,000 that was paid out in the way of a dividend?

A. What do you say that leaves?

Q. (Question read.)

A. I don't think so. I think you ought to add the bonds to-day outstanding bonds I mean.

Q. I am not talking about bonds, I am talking about earnings. You have first the net earnings after you have taken out depreciation, \$1,779,685.

A. Yes.

Q. The depreciation you charged against that was \$241,000?

A. Yes.

Q. You have testified that depreciation was not as a matter of fact set aside?

A. No.

3799 Q. Well have you so testified.

A. Yes, I have testified it was not so set aside.

Q. That would leave \$2,020,685 of the total net earnings?

A. That is true.

Q. Now then you say we retired \$389,000 preferred stock contracts with it?

A. Yes.

Q. That would leave available to go into plant \$1,638,685.

A. Yes.

Q. Now add a half million you refer to in this sentence to that and see what you have got for the cost of your plant?

A. \$2,131,685.00.

Q. You told me it cost \$1,727,000, that was the total investment.

A. Yes, I gave you that figure I think.

Q. Now there is something wrong in these figures isn't there, they don't check out?

A. I didn't try to give you the exact check, but there are an excess of earnings there over the \$1,727,000 and my statement—

Q. The \$1,727,000 is the investment?

A. That is the investment and while technically according to your books the outstanding stock contracts are not any more — \$800,000 but only \$389—\$800 less \$389, nevertheless practically as your books show there has been an increase of only a few thousand dollars in securities in the last four or five years.

Q. You are getting clear away from this question here which is how you justify the first sentence in your report with the exception of a half million dollars the plant appears to have been entirely built from earnings. I want to know whether you can justify that with figures.

— — — — —
Q. How do you do it?

3800 A. I do not make the claim there that there is only \$500,000 which you are entitled to capitalize you notice.

— — — — —
Q. Please get back to the question, the question is how do you with figures justify this statement with the exception of a half million dollars the plant appears to have been entirely built from earnings or was that just thrown in there as sort of a nice thing to start with?

A. No. Now let us study these figures a moment, \$2,020,685 were net earnings, \$389,000 have been retired of the preferred stock.

Q. For the purpose of this discussion I am conceding it was retired out of net earnings as you claim?

A. I don't know that I recognize the reason for deducting \$389,000 it would strike me at first thought that the net earnings were \$2,020,000.

Q. Let me suggest this, if the \$389,000 were net earnings, and was used to retire preferred stock contracts, could it also have gone into the plant?

A. No, but—

Q. Then if you say that was used to retire the preferred stock contracts, in order to conform to your theory we ought to deduct that from the total amount of net earnings?

A. I say that the books nominally seem to show that as I understand from Mr. Hall, but that is not I think substantial and practicable point. What the practical point is that the bonds, new bonds retired the preferred stock contracts, some of the new issue of bonds were the same day in which the preferred stock was retired.

Q. How many were?

A. I have forgotten.

Q. Don't you remember that it was just about ninety two
3801 or ninety three thousand dollars?

A. I think as far as I have any figures they are that, but I don't know what the dates are as authorized, I haven't dates as to that.

Q. You don't require \$380,000 of contracts with \$92,000 of bonds do you?

A. If you will notice the total outstanding preferred stock and bonds now as compared to five years ago you will find there has been less than 50,000 increase in these securities and I think that the point may be considered practically, I don't say that is on your books you did it that way.

Q. I want to know how you got this statement here, I want to get down to brass tacks and not glittering generalities?

A. First you have got to divide this into two periods, take everything before March 1, 1906, as one period and then since then as another.

Q. Why is it necessary to divide it into periods if you know the total amount of earnings in both periods. You would have to add them together then wouldn't you?

A. It is not necessary except to show the amount of my analysis there.

Q. You see you are getting away from this all the time. I want to know the basis for your first sentence in your report. If that is true it is because it is a proper deduction from some figures that have been introduced in here?

A. Yes.

Q. Now then will you give me those figures from which you made this deduction?

A. I did so in this way. I first studied the period before March
3802 1, 1906, and found an investment value of the property as given by me on page 47 as \$1,019,603. Now the bonds outstanding at that time or on the next—take out \$500,000 only as my statement is half a million, leaves \$519,603. Now the net income given on the same page after deducting an allowance for depreciation was \$642,129.40. Therefore my thought was that the net income which had gone back largely in the plant or \$542,000 had been what had been used to pay for that \$519,000 of investment. Now in the same way take the second period, I can find it in a minute if you want me to take the time.

Q. I would like to have you take the time.

A. I would have to find Mr. Hall's exhibit. If you will turn to Exhibit "F" in Mr. Hall's report, defendant's Exhibit 30, you will find that the total fixed liabilities on March 1, 1906, are given as \$3,734,000 and on December 31, 1910, only \$3,758,000 an increase of only \$24,000 and the amount of liabilities increased to the same extent which is shown a little lower down in the table, accrued liabilities increased from \$21,015.83, to \$58,817.07 so the total increase in liabilities was \$24,000 in the fixed liabilities in the five years and about \$37,700 in the current and accrued liabilities—wait a moment that was accrued liabilities I was rendering such as

interest and taxes there was in addition an increase in current liabilities from \$18,227.80 to \$51,836.57, increase in that item of about \$33,600. The total increase was about \$93,000. Now the rest of the extensions amounting to several hundred thousand dollars, about four hundred thousand dollars if I recall right, possibly 500, but anyway I think they are four, must have been paid off by surplus earnings all but \$100,000 in round numbers the last five years the position I was taking in that page you refer to it was paid off by surplus earnings while the surplus earnings before that 3803 had exceeded the construction and the \$500,000 allowance. So it was that which I had in mind when I made the statement in the table.

Q. That was the basis for this statement.

A. Yes, but I do not assume that the investment should be counted on that basis at all and do not use that as a basis of reckoning at all in future in the report.

Q. What is the significance or what is the purpose of that first sentence in your argument here?

A. It was an industrial statement as to how the property had been built which was by leaving the earnings in and then dividing them in \$800,000 of preferred stock contracts afterwards and was intended to meet the statement so commonly made, I remember it — made in this case two or three times that there had been no dividends during these long periods of years, the implication being there had been no profits. It seemed to me that the profits had been made, they went into the plant, then they were taken out in preferred stock contracts, the preferred stock contracts here being paid off nominally by earnings while new bonds are ordinarily issued for extensions, but practically the securities remain the same and the extensions since 1905 was earned and a paid out of earnings much as before.

COURT: I want to call your attention to the fact that there was \$400,000 of bonds of the old company at that time, that evidently was used in construction of the plant. Then there was \$120,000 of this sum that was used to pay off for material evidently?

A. I think this can be said if we take the investment as I have just given it of \$1,019,603 on the first day of March, and only allow \$500,000 which was my statement here, there remains \$519,603 and the earnings were \$642,129, the earnings were \$123,000 more 3804 *the* than necessary to build the plant aside from the \$500,000. But some of it was distributed in dividends and interest before 1895 and of course some of it since, and more bonds were issued than \$500,000 and I think that statement in the spirit in which I meant it is correct.

COURT: You didn't use apt language then?

A. Perhaps not.

Q. And that was meant to answer the argument you have referred to with reference to or based upon the alleged statement that no dividends had been derived from the property?

A. That and what followed was intended to.

Q. Can you remember any one of the complainant's witnesses who testified to that or made that averment?

A. I don't remember now, I remember Mr. Lilley made it in 1895 and I thought it had been referred to in this case. I really thought there had been some reference to no dividends.

Q. You didn't intend it to answer the argument to Mr. Lilley in 1895?

A. No, I had that in mind first and I still remember some statement somebody made here.

Q. By some of the defendant's witnesses and not the complainant's witnesses.

A. May be, I thought by the company's witnesses, may be not.

Mr. BYERS: Counsel himself brought it out did he not?

A. My impression is I heard it here in the court room.

Q. You next take up here do you not the cost of the property to the Des Moines Gas Company as measured by the securities which were issued for the property.

A. Yes.

Q. And you get a total of \$1,440,000?

3805 A. Yes.

Q. By ignoring the common stock.

A. Yes.

Q. If you take common stock in, of course this total would not be correct?

A. That is right.

Q. Common stock was issued under the same resolution, part of the same transaction under which the others were issued?

A. Yes.

Q. Now then you say the last part of this page 6 that we are to add here some \$484,467.94 for extensions since March 1, 1906?

A. Yes.

Q. Where did you get that figure?

A. I refer here to this figure Exhibit 30, page 21.

Q. Now then what is the total of the extensions given by Mr. Hall on page 21 from March 1, 1906 to December 31, 1910?

A. He gives the figure that I use \$484,487.94, he adds then \$45,000 for Valley Junction and the added cost of the holder \$120,000.

Q. So that what does Mr. Hall use as the extensions from March 1, 1906, to December 31, 1910, at page 21 of his report?

A. \$549,487.94.

Q. You are \$165,000 less than what appears at Mr. Hull's report, page 21.

A. No.

Q. You are not?

A. No. That is in the bonds issued March 1, 1906.

Q. What you say is this if there be added the \$484,000 of extensions since March 1, 1906, defendant's Exhibit 30, page 31—you say the \$1,440,000 is included in the \$640,000 of bonds?

3806 A. In the \$1,440,000 is included the \$640,000 of bonds as you will notice higher up on the page and that \$640,000

of bonds includes the \$240,000 issued for that holder, the \$45,000 at Valley Junction is not in there, but in the city limits the property is there.

Q. The reason you did not take Mr. Hall's total was that you thought you would duplicate that holder if you did?

A. The holder was in the \$640,000 and I thought to take it again would be to duplicate it.

Q. Then you do leave out the Valley Junction property?

A. Yes.

Q. You reach a figure of \$1,850,000 which you call net value, line 2 of page 7. You mean cost figured on the theory which you have adopted don't you?

A. Yes, although I consider in this case on the basis I reached the previous page that the dividend and interest bearing securities issued in 1905, represented the estimate of the Des Moines Gas Company of its value because I assume that the stock had little value, but in so far as it had a value——

Complainant moves to strike out the latter part of the answer of the witness as purely an argument and statement of his conclusion as to what he believed the Des Moines Gas Company thought five years ago and as clearly incompetent.

A. You are asking whether the value as carried is correct from my point of view?

A. I was asking you whether or not this net value ought not to be net investment?

A. And I wanted to say I thought it should be value.

Q. It should be value on the supposition that the stock represented little value.

3807 A. This \$1,440,000 represented value in 1906, plus something for the stock which I do not allow for.

Q. You don't know what it is?

A. No.

Q. But it did represent something didn't it?

A. Yes.

Q. So that if you get back to what you have adopted there namely what your inference is as to the idea of the Des Moines Gas Company in 1906 as to the value of its property, it would be something over \$1,850,000 provided its idea of depreciation compared with yours, how much over you could not tell because you don't know what they regarded the stock was worth, that is about the straight of it.

A. Yes. I don't use that figure you notice in my further report?

Q. That is what I was going to ask you. From this time on, you do not refer to the \$1,850,000?

A. No, I do not.

Q. Now you say this figure will be henceforth referred to as cost to the Des Moines Gas Company?

A. When I dictated that I thought I might be referring to it again but I didn't get around to do so.

Q. Now you say a sounder view, however, and the one more in

line with court and commission rulings, is obtained by ignoring and so on? Tell us just what ruling did you have in mind there?

A. The investment in the plant instead of what was paid on charge of ownership has been the basis of most of the rate decisions in Massachusetts and largely in Wisconsin, especially in Massachusetts and in New York. A few of these decisions have gone to the courts as in the case of the Cedar Rapids Gas Company and affirmed by the supreme court of the state.

3808 Q. Now let's get back to my question. The Cedar Rapids case you refer to is a court ruling?

A. It went to the court finally.

Q. Is that one of the court rulings you have in mind here in this part of your argument where you say it is more in line with court and commission rulings?

A. There was no change if I recall right of ownership there.

Q. You have forgotten the question I asked you, whether the Cedar Rapids Gas Company's case decided by the supreme court is one of the cases you referred to there?

A. I think I had in mind several cases where matters went up from the eastern decisions.

Q. Now then what are they?

A. The Haverhill gas case.

Q. That went to the courts?

A. And has not yet been settled.

Q. That is not authority for this statement is it?

A. The commission ruled in the way I interpret it.

Q. I am talking about courts.

A. The courts have not yet acted on that, this claim made by the company the decision of the commission should be ignored. The commission refused to recognize a transfer as an excuse for increased security.

Q. Is that undecided court case the only case you relied on?

A. No. I don't recall at the moment, but I have been familiar with a great many but just where and that the decisions were at the moment I cannot recall.

Q. Can you give us a reference to a single decision by a court or a commission, give us the reference by name that will sustain this statement in your report?

3809 A. The Haverhill case was a decision of the Massachusetts gas commission on that very point.

Q. Where was that reported and when?

A. In one of the annual reports of the commission in the early nineties.

Q. And it is still in the courts?

A. Yes. I think I can give you other cases. I am very positive I read of that attitude in some of the commission decisions besides the Haverhill case, very positive of it.

Q. This opinion or statement here as to decisions by courts or commissions that you will give under oath?

A. Yes.

Q. Don't you think you ought to be able to refer us to something that sustains it?

A. I am very positive I have read that in court decisions too.

Q. Now which one?

A. I don't recall at the moment, I will try to think it over.

Q. Will you please give us references to the decisions which are the basis for this statement I have just referred to?

A. Yes, I will try to think that over.

Q. Now then you say the true investment of the gas company is \$1,727,676 including Valley Junction. Where did you get that \$1,727,676?

A. It is in one of these tables.

Q. But you didn't get it from that table did you?

A. Yes, I made up this table before I wrote that statement I believe, that is my recollection of it.

Q. Well give us the table?

A. On page 25 it is in that place.

Q. Isn't 16 the table which that is made up from?

3810 A. It appears in both tables, the same figure in both tables, but it appeared first in Table 16.

Q. And that is the first table, then the other table on page 24 is made up from table 16.

A. That came in on page 16 first.

Q. Turn to page 21 of Mr. Hall's report and tell us whether those figures are all taken from that report.

A. Yes.

Q. Just rearranged a little.

A. I intended to do so.

Q. So that this statement of \$1,727,676 is something that is adopted by you from the report of Mr. Hall?

A. Yes, I think he made the mistake which I followed not at the time realizing it of putting \$120,000 into holders when it should have been the middle period.

Q. If you had put it in there you would have straightened out that curve?

A. Partially. I did not discover when writing this table, dictating it that the inventory and Mr. Lea's testimony gave the holder as 1903, but afterwards discovered that.

Q. Now referring to this table on page 16 you testified that this was the amount that the books showed had gone into this property didn't you?

A. Yes, I think so. I don't remember just what I stated.

Q. Basing your testimony on your own information these are the figures shown or some of the figures shown at page 21 of Mr. Hall's report rearranged by you?

A. That is what they are. I do not intend to state anything contradictory to that.

Q. What I want to get at is this, your testimony that
3811 these are figure- shown by the books is not based on any knowledge of your own at all?

A. No, I have taken Mr. Hall as authority on the books.

Q. If you had simply told us the plain facts without anything else you would tell us these are certain figures shown by Mr. Hall's report and adopted by you?

A. Yes, and that is what they purport to show as I understand.

Q. That was what I was getting at, you testify to what Mr. Hall testified when you said they were what were shown by the books?

A. As to that point. But I used the figures as a basis for computations on depreciation, etc.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

3812

FRIDAY FORENOON SESSION.

SEPTEMBER 22, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

Prof. EDWARD W. BEMIS, continuing his cross examination, examined by N. T. Guernsey, Esq., testified:

Q. Professor Bemis, yesterday you referred to the Boston adjustment—you are entirely familiar with that, aren't you?

A. Why, largely familiar; don't know that I am entirely so.

Q. I believe that adjustment was made by legislative enactment, wasn't it?

A. Yes.

Q. And you did not state, did you, yesterday that that enactment, notwithstanding the 4% rates you talked about at which securities were selling there, fixed 7% as the basis for return?

A. For a sliding scale, I think it did.

Q. Fixed 7% as the minimum?

A. Well it was the basis; if they raised the price—

Q. I will get to that later. Then it further provided that whenever the price of gas—it provided a normal or standard price for gas?

A. I believe it was 90 cents.

Q. And it further provided that whenever the price of gas was decreased five cents they might increase their return or dividends one per cent?

A. Yes.

Q. And as a matter of fact the dividends that are paid are 9%, are they not?

A. I believe so.

3813

Q. And the plan did not stop there?

A. I believe it goes right on; they can go on with further increases.

Q. That is not what I mean—the plan further provided for the creation and maintenance of a fund out of earnings to cover contingencies and emergencies?

A. I am not sure whether it did or not. I don't think there is

any such fund accumulated as I recall the last report; whether the law provided it, I don't know.

Q. Aren't you familiar enough with this situation in which you took such a prominent part to be able to tell us whether I am correct in my recollection that the law provided there for the creation of what might be called an emergency fund out of the earnings, and provided that if it was encroached upon on account of necessary expenditures, they could proceed to take the earnings and bring it back to the original amount?

A. I don't remember, and I will explain why. I was not in the case at the legislative feature of it, only before the Commission; so I had nothing to do with the final passage of the law.

Q. Haven't you carefully studied all these things since then?

A. I have carefully studied the reports of the Boston Consolidated Gas Company in which I find no such accumulation as you refer to.

Q. So that they have there what they call a sliding scale, as a matter of fact?

A. Yes, it is the only city that does have it, I think, in this country.

Q. Now your attention was called to the inventory—you said this with reference to the inventory, referring to page 3663: "I did not look it over with the care that I looked over and specially studied the summary that Mr. Lea and Mr. Baehr used in their evidence." Now you took Mr. Lea's report or Mr. Baehr's report as a description of the property, is that right?

A. Yes, so far as related to all I needed it for. I do not claim it was a complete description of the property.

Q. All you needed it for was to analyze and answer their testimony?

A. It was to analyze it—

Q. And to attempt to answer it in your argument here?

A. A good deal of it I agreed with and a good deal of the testimony I agreed with, and I commented on it and expressed my views on it.

Q. And of course the inventory would not do you any good for that purpose?

A. Yes, I am assuming for the moment that the report was based correctly on the inventory, which there seemed to be no dispute about.

Q. On page 3667 in this preliminary examination you stated that you had examined Mr. Hall's report carefully and had checked it up. What do you mean by saying "checked it up?"

A. I had compared one portion of it with another to see that it was consistent with itself. I had very carefully followed the cross examination and the various exhibits which are supplementary to the report to see whether errors or omissions were being shown in the report.

Q. You checked these exhibits for the defendants as they went in in connection with Mr. Hall's examination?

A. No.

Q. They were turned over to you as they were introduced, were they not—all that referred to accounting or anything like that?

A. I tried to get them all; I don't know whether I did get every one or not.

Q. That was true not only as to Mr. Hall's testimony but
3815 as to all testimony during the part of the trial you were in Des Moines?

A. Yes, I tried to get all the exhibits to look them over; I did get nearly all of them.

Q. That don't answer the question—they were turned over to you immediately after being introduced to be checked over by you, were they not?

A. They were turned over; I can not say the purpose was I should check them over, but the purpose was to make such use of them as I wished to make.

Q. A part of the work you did was to examine these exhibits and see whether they were right or not and make suggestions as to the treatment to be accorded them?

A. Yes; I did not attempt a careful checking of all tabulations or even computations indicated in the reports; I did not have time to attempt to see if there was anything arithmetically out of the way; I assumed it was all right.

Q. Now when was it that you checked up Mr. Hall's report?

A. The copy was in my hands all through his testimony and I carefully studied it—in fact I got it about the time I reached Colfax.

Q. You checked it up before he testified?

A. Not to the extent you refer to. I studied it and it did not result in any changes in his report. I was at work studying it just as soon as I could get hold of it.

Q. You were at Colfax with him two or three days before he went on the stand?

A. Yes.

Q. He had his assistant, Mr. Sangster, there and you had your stenographer there?

A. Yes.

3816 Q. And you were both working on this report of Mr. Hall's?

A. No, I was working on data that I might want to use, extracting from his report such data as I might want to use. He was working on, I don't know just what at that time.

Q. And when was it you and he collaborated with reference to Exhibit 33, this going value on the Wisconsin theory and so on?

A. That treatment of the going value is entirely original with Mr. Hall.

Q. You had nothing to do with that?

A. No; except he told me about it.

Q. You don't want to claim any responsibility for that?

A. I had nothing to do with it, except he told me about it.

Q. When did he tell you about it?

A. I think on the train coming in in the morning he presented it.

Q. He didn't tell you while you were at Colfax?

A. He worked it out the night before, along the middle of the night, as I recall it. We had to make an early start and on the train we talked it over.

Q. Now you were asked this on page 3669 of the record: "Have you so far as it was possible for you to do in the time followed the history of the Company from that time down to this (referring to the sheriff's sale) and noted the transfers and changes in at least the name of the owner?" A. Yes. Q. How much time have you devoted to this work, Professor? A. When I have been in the city, all my time. When I was in Chicago probably half of my time during the interim here of a couple of weeks." Now, to what source did you go for your information as to the history of the Company?

A. The testimony and exhibits of the case of 1895, and for the subsequent period the testimony and exhibits in this case. I 3817 think there was an addition which may have been put in as an exhibit, some city volume which gave a list of franchises and agreements that had been made between the city and the company, and I glanced through that; it may have been put in as an exhibit, I don't know; it included the ordinance passed last December, etc.

Q. What you looked over was the record of that earlier case and the record in this case practically?

A. Yes.

Q. Now, last evening I think I asked you for a citation of the authorities upon which you based your statement in page 7 with the view in line with court and commission rulings as you stated there; can you give me those authorities?

A. I did not bring with me the data on that subject, but one of the rulings which had always been in my mind as along the line that I refer to here is the Knoxville Water case decision of the United States Supreme Court in which they ignored the securities and insisted that was not of any great importance in the matter. Then before that there had been the Nebraska rate case——

Q. You mean the Nebraska rate case in the United States Supreme Court?

A. Yes.

Q. Smythe vs. Ames?

A. Yes, that and the Standish Laus water case. In those three cases, at least, there had been insertions, as I recall them, that the securities were at least only one element and not a leading element in the valuation of property for rate purposes.

Q. Which is not the proposition which you assert here, but is a different proposition?

A. Well, I had in mind, that here was changes in securities coming about when property was transferred, and I had 3818 in mind, not exactly a court decision, although I think it has been upheld and it is law still, the Massachusetts law of three or four years ago, that directly prohibits all securities in case of consolidation or sale of gas and electric light properties.

Q. That is a statute that applies to Massachusetts, but not to Iowa?

A. Yes.

Q. So that so far as the real proposition that you assert here goes, you don't know of any decision that even involved the question, do you?

A. I consider that the tendency of the Supreme Court to ignore capitalization is along that line.

Q. Do you know of any decision by any court that involves this question?

A. I haven't my data with me; that is the nearest approach to it; I didn't say exact decision; it was along the line, the spirit of these decisions.

Q. Now, in my copy of your argument here, referring to these quotations on pages 8, 9 and 10, those pages are all of them quoted, except the single paragraph on page 9, are they not?

A. I think so.

Q. And in that paragraph you have in my copy stricken out what was originally inserted, showing a failure to earn operating expenses in the earlier period?

A. Yes, but I did not take the pains to have a new copy made.

Q. Now, on page 11 there is nothing, is there, except what purports to be either copies or statements from testimony given in this earlier case?

A. That is true.

Q. And did you correct that date, December 31, 1910, at the last line on page 11 yesterday?

3819 A. I thought I did; I did in my copy at least. The last line on page 11 should be December 31, 1894, instead of 1910.

Q. Now taking this document so far as we have gone, is there any thing that relates to the present value of the property in these pages, 6 to 11 inclusive?

A. It depends on what is meant by the word value.

Q. Taking the word value in its ordinary sense?

A. I should say, as relates to its value for rate making purposes, the history of the investment is vital.

Q. Taking the word value in its ordinary sense, is there anything so far as that has any bearing upon it?

A. Yes.

Q. All right. Now, then, you say at the top of page 12, the ledger showed an investment in construction and working capital on December 31, 1894, of \$681,646.04; did you get that from the ledger?

A. I secured that from the exhibit of Mr. Pratt which purported to contain a copy of that.

Q. So that was as far as your information goes, and it would have been more accurate to have stated here that you found that Mr. Pratt said on December 31, 1894 this was the ledger investment?

A. Yes; I think I found Mr. Lilley testifying to the same effect.

Q. That statement is not based on any examination you made of the books, but simply based upon what somebody else said in 1892 or 1894?

A. Oh, yes; I did not go to the Company's books at that time.

Q. Now, then, you have a statement here showing \$215,113.11 deducted, or to be deducted from that investment?

A. Yes.

Q. The deductions made by Mr. Hall on page 22 of his report were \$211,468.16, were they not?

3820 A. On page 22, that appears to be so; I should judge that was his.

Q. Where did you get this \$215,113.11 which would make it up?

A. It may be a mistake in addition, but I certainly intended to add those figures correctly.

Q. Well, aren't they added correctly?

A. Yes. Now the data from which the total was obtained was taken from that exhibit of Mr. Pratt's and Mr. Lilley's which contained those items. In the affidavit of Mr. Pratt it is stated in introducing the cash investment of \$466,532.93, that that is obtained by omitting from the book investment the items marked with a red cross, in the long sheet of items, and I looked for the items, those marked with a red cross, and I found them to be these, and deducted them and reached the exact figure Mr. Pratt had used, and that seemed to confirm his statement.

Q. Then it looks as though Mr. Pratt deducted a little too much, if Mr. Hall is right?

A. Yes. I don't know how Mr. Hall reached that figure.

Q. It shows in his report, don't it?

A. His report is about \$3,700 less.

Q. Does not Mr. Hall's report show very clearly how he reached this figure on page 22?

A. I think Mr. Hall failed to deduct the first three items given in my report on page 12.

Q. As far as you are concerned, you simply followed Pratt?

A. I certainly did, in that table.

Q. That is what we are talking about.

A. Why I made the remark in the way I did is, at first perhaps I had it in another table, but I believe I did follow this conclusion right through.

Mr. BYERS: I will call your attention, you will notice
3821 further down in the Hall report the first time you used on page 22.

Q. What is this reference on page 22 to which counsel has called your attention?

A. I didn't really notice what he was saying about page 22.

Q. All right. You haven't really checked Mr. Hall's report carefully enough to know whether it agrees with you on this item or not, have you?

A. No. But I believe that he started in his further tables with the Pratt statement of \$429,426.83, aside from the supplies, materials, cash, bills payable, an aggregate of \$37,106.10. So I believe whatever difference there was was merely in some explanation of how the \$429,426.83, or the \$466,532.93 was reached. But I think Mr. Hall further on started with Mr. — figures, the same as I did.

Q. So far as you are concerned, you are taking either the one or

the other; you are not basing your figures on any independent investigation of your own; you are simply accepting one or the other of these men for these figures?

A. I accepted Mr. Pratt for the starting point, January 1, 1895. and it is the same thing that Mr. Hall took. Further on I took Mr. Hall.

Q. You simply took what you found in somebody else's report?

A. Yes.

Q. I notice both in this argument and in the early argument, you called attention to the fact that you claim that this \$466,532.93 has never been reduced by any depreciation charge; now is there such a statement, or is that a mere inference of yours and a mere claim you make from these facts as you think you found them.

A. As I found them, and as I listened to your cross examination of Mr. Hall.

Q. In other words, this is a pure deduction on your part that you put in here for whatever it is worth argumentatively?

A. It is my reading of the evidence and listening to the evidence.

Q. It is not based on any examination of the books by you?

A. I think I stated I did not go over the books of the company.

Q. Do you think it would have been fairer if in the same connection you would have called attention to the same fact that Mr. Pratt said the property was actually worth more than this?

A. I thought I had brought out either in my testimony or elsewhere that there were appraisals made by Mr. Walton Clark, Mr. Cowdry, Mr. White of New York, and I think one or two others, which were not very different from this statement of Mr. Pratt's. I don't think they vary \$20,000. There were some, I think, were higher and some lower, but they didn't vary \$20,000 either way. I think I referred to that; anyway I thought I did; I intended to in my testimony. I am very positive I referred to those appraisals.

Q. (Last question repeated.)

A. I referred to all I remembered on the subject; I do not at the moment remember; I cannot answer it directly.

The MASTER: That don't answer the question.

A. If I had in my mind such a statement, it would have been fairer to mention it. I don't remember such a statement; I don't even recall having seen the statement.

Q. Will you turn to page 10 of your report and look at the last sentence?

A. Oh, yes; \$470,000.

Q. You forget those things, I suppose?

A. That is only \$4,000 difference.

3823 Q. It is more than that, isn't it? After you talked about depreciation and after you took out your working capital and things like that?

A. No; because I left the \$466,000 I stated in there; I didn't take any of it out for depreciation.

Q. But you say it ought to be done, and then you say certain

other things about the working capital and you call attention to every reduction there?

A. But you notice I leave in my report the full \$466,000.

Q. Oh, certainly. What I want to get at is this, whether if you wanted to create a fair impression as to the result of Mr. Pratt's testimony, you would get at it by taking the low amount and saying really that ought to be reduced, and omit his higher amount?

A. His amount of less than \$3,500 was so near the same, I would call it the same for all practical purposes.

Q. Do you remember any item of \$3,400, where it would be taken into account for the benefit of the city, that you omitted?

A. I put back into the operating expenses that amount for accidents which Mr. Hall had not allowed.

Q. That is not a mere matter of discretion, it is not a sort of gratuity from you, to put into operating expenses what ought to be there?

A. You misunderstood the use of the word ought. I tried to put data as I thought it should be put. I still believe, as I stated, that the property was valued new, rather than in a depreciated capacity prior to 1895; so it was necessary for me to state it as I believed it then and now.

Q. That is, it was necessary if you were going to argue views and facts; but it was not necessary if you were testifying as to
3824 matters of fact?

A. I was testifying also as to matters of opinion.

Q. But as to matters of opinion your testimony is not limited to opinions that are matters of expert knowledge, is it?

Objected to on part of defendants as being a mere argument and improper cross examination.

Q. This matter of opinion you are referring to is an opinion as to conclusions to be deduced from certain testimony?

A. It is that, and also based on studies of depreciation, and I don't know but they have some relevancy.

Q. Now, then, you say on page 13, that from January 1, 1895, to February 28, 1896, the new construction was \$648,760.90; that is not based on your own investigation; that is simply taken from Mr. Hall's report?

A. As stated here. I tried to give credit for it.

Q. Now you say the books of the company agree with this, have you checked them?

A. No. But I listened to all the testimony in which the matter was brought out.

Q. So that statement is not based on any investigation of your own; it is simply your statement of the effect of the testimony?

A. Yes; I repeat, I did not go to the books of the Company at all.

Q. And then we go on with this—all of these paragraphs then are mere statements of your conclusions from the testimony of some of the other witnesses in this case; none of it is based on anything

of which you have any more direct knowledge, for instance, than I have?

A. That is true, I should say.

Q. We both of us heard the testimony here?

A. Yes, you are referring now to page 13?

3825 Q. I am referring to the first paragraph of page 13.

A. Yes.

Q. Now let us go on with the next one; your first sentence there is of just the same character?

A. Yes.

Q. Now you say it is the claim of the Company that an additional amount of \$120,000 not reported on the books of the Company was paid for the new holder of 1,132,00- feet capacity; that is a mistake, isn't it?

A. I don't think so.

Q. What witness for the Company made such a claim?

A. Mr. Hagenah.

Q. Mr. Hagenah, you understood him to say what?

A. He said he had been unable to find anything on the books, but he had been told that the money had been paid for the holder, as I recall it, and Mr. Hall I think testified——

Q. I am talking about the Company's claims.

A. Yes.

Q. As a matter of fact the Company has made no investment claim aside from the mere general showing of what Mr. Hagenah's theory would work out; but it has based its estimates of that holder, not on the cost, but on what it is worth?

A. Aside from Mr. Hagenah, I think that is true; I don't think there is any other evidence about its cost except Mr. Hagenah's.

Q. Did the company through Mr. Hagenah put in any evidence about its cost?

A. Well, it may be that it was on cross examination; I am not sure as to that; all I remember is that I heard him testify about it.

Q. Now, take your next sentence, none of the Company's
3826 witnesses in a position to know about it have testified that the holder did cost this much; pure argument, isn't it?

A. Fact, I think.

Q. Pure argument?

A. I consider it a fact that has a very important bearing.

Q. Upon what?

A. Upon the value and cost of this property.

Q. Now what one of the Company's witnesses who testified had any knowledge so far as you know about the cost of that holder?

A. I suppose Mr. Douthirt did.

Q. I am not asking you to suppose.

A. I couldn't say positive; from his knowledge about the Company, as he testified, I should say he would know.

Q. Was Mr. Douthirt one of the Company's witnesses?

A. No.

Q. To get back to the question, was there one of the Company's

witnesses, so far as you know, that had any more knowledge than you have as to the cost of that holder?

A. No witness put on by the Company apparently did, unless it was Mr. Haines.

Q. Do you know whether Mr. Haines knows anything about it?

A. I couldn't say that he wouldn't know; it would be rather assuming a good deal to say he didn't know.

Q. Notwithstanding that, in this argument that you swear to, you bring this up for the purpose of practically criticizing the Company for not showing that cost?

A. Yes.

Q. Now, then you say—for the present, however, this \$120,000 is conceded to the Company—what do you mean by that?

A. I mean in this computation I will take it, although a
3827 little suspicious of it.

Q. You know the Company has the holder?

A. Yes.

Q. You know if you omitted the holder you would not get the value of its property?

A. Certainly; it is only the amount.

Q. Now, then, where did you get that \$529,487.94?

A. That is from the testimony of Mr. Hall, which I used on page 16 in that table and referred to it as having come from the defendant's Exhibit 30. It is on page 21 of Mr. Hall's exhibit.

Q. You state this is the amount of expenditures during this period from March 1, 1906 to December 31, 1910?

A. Yes.

Q. Now, have you included that \$120,000 in there?

A. No; Mr. Hall said it wasn't on the books; but I do include it in my computations later.

Q. So that the statement of the amount of expenditures would be misleading at least?

A. I think it is accurate, taking it in connection with the next sentence.

Q. The next sentence—it is the claim of the Company?

A. Yes.

Q. You go on and say you conceded it and that would lead to the inference you included it?

A. I did.

Q. In that amount?

A. No, in the further amount which follows.

Q. Now, passing on to this matter of preparation and reorganization expenses \$6,922.82; you throw this out altogether?

A. I understood they were expenses, from Mr. Hall's testimony, connected with the transfer of title from the Capital City
3828 Gas Light Company to the Des Moines Gas Company March 1, 1906.

Q. Well, Mr. Hall didn't testify as to the details of those expense—did he?

A. I don't recall it; I think in his testimony he stated what it was for.

Q. What were they as a matter of fact; you threw them out and you didn't throw them out without knowing what they were?

A. I understood from his testimony they were the legal expenses connected with the change of ownership of the properties, traveling expenses, anything incident to the mere change—might be some new incorporation expenses, but they were in the nature primarily the cost of transfer of ownership.

Q. What I want to get is this: did you throw out this expense without taking the trouble to find out just what they were?

A. Yes, I only learned their nature.

Q. Do you think you could very intelligently determine whether they should be thrown out without finding out what they were?

A. Yes, if they were the expense of transfer of ownership.

Q. I want to know whether you think you could intelligently determine whether they should be thrown out without first ascertaining what they were; you cannot answer that by assuming you did know what they were?

A. Yes; I do not need to know the details, or what they were, if they were for transfer of ownership.

Q. Now, then, I have a memorandum of these expenses and I hand you a copy of it. Referring to this Exhibit 63 now, which is a memoranda showing the items of these expenses, there are first as you indicated, a few items of traveling expenses; then the notary services; then an item of \$800 services of A. B. Cummins
3829 re opinion respecting franchise of the Capital City Gas Light
Company; then an item of \$400, services of A. B. Cummins,
re articles of incorporation of the Des Moines Gas Company and
advice respecting the same; without going further at present, if it
was proposed to organize a new corporation and have it take over
this property and issue new bonds, there was no impropriety in get-
ting the best possible legal advice as to both the franchise situation
and the organization of the corporation, was there?

A. No.

Q. That was practically a moral obligation to the men who might afterwards acquire these bonds?

A. Yes.

Q. So that you would not say, so far as these expenses are concerned that they were improper expenses?

A. No.

Q. Now, then the next item here is \$2,265 paid to the Secretary of State under the laws of this state on account of incorporation; would you say that was an improper expense?

A. No.

Q. Then the next item, the purchase of a seal for \$2.45, would you say that was an improper expense?

A. I am willing to concede if the company is to change ownership, all the expenses are proper.

Q. The other items are printing mortgage, engraving bonds, for some legal services, publication of the incorporation notice and for other legal services, and printing stock certificates; when you

made your account, did you put those items into the operating expense?

A. I don't think so.

3830 Q. They had to go somewhere?

A. I should take the amount of dividends, out of the profits; it was a mere scheme of taking the property from one pocket and putting it into the other of the U. G. I.

Q. Wait a minute—let's see. You know under the situation existing prior to this time, the corporation, the Capital City Gas Light Company could not issue a dollar's worth of bonds to get additional money to make extensions to this plant; you know that?

A. It had to be done by stock, as I understand it, if at all.

Q. Now, then, you know from your broad experience in the gas business that constant and additional capital would be necessary, don't you?

A. Yes.

Q. And that it was necessary to finance that in some way?

A. Yes.

Q. Here was a situation where they were up to their bond limit; they had \$600,000 of stock; under the laws of this state they could only issue two-thirds as many bonds and had issued all of them.

A. Yes.

Q. It was necessary to do something?

A. Yes.

Q. Under such circumstances it is usual to recognize, is it not, and to provide for a new trust deed that will give some lee-way, have some flexibility and afford means for securing additional funds?

A. It is against public policy to do it the way you did it.

Q. I didn't ask you that. Answer the question.

A. It is rather common, but fortunately going out of use with the change of public opinion. That thing would be forbidden in Massachusetts and several other states I think. I think New York state now forbids it.

3831 Q. Passing those things which are all interesting, if true, it was necessary to do something?

A. Yes.

Q. And this expense was in your judgment a legitimate expense—without asking you to approve of the method that was adopted for meeting this situation?

A. If you were to meet it that way, I assume those expenses were necessary.

Q. Now, then, when you entered them on the books of the Des Moines Gas Company—these expenses were incurred of course at the very time they were organized—there were no profits out of which to pay them?

A. There were many hundred thousand dollars accumulated profits that had gone into the plant.

Q. You couldn't use that to buy bonds or pay lawyers?

A. No.

Q. To what account would you charge those things when you paid the bills?

A. Well, not being a book keeper, I am not going to say. I think they were properly chargeable to some expense account to be paid out of earnings of the next two or three years.

Q. Then to make this thing correct, if you throw them out of capital, you would have to put them into operating?

A. I wouldn't call it operating expense. I meant payable out of net earnings; just as discount, however I will keep free of the discussion for the present.

Q. You throw those out for the same reason you throw out the discounts on bonds?

3832 A. I don't think so exactly; I realize that is a slightly different situation with the discount; it is not analagous.

Q. Have you ever in connection with your investigation of these questions looked into the classification of the Interstate Commerce Commission?

A. I have as I have other classifications, but I do not think I looked into it with reference to this point particularly.

Q. The Interstate Commerce Commission, when it comes to the question of how you shall classify the expenditures for the cost of steam railroads, for instance, says that discount on bonds is a capital expense, doesn't it?

A. It might say that; I am not sure; if you say it does, I will accept it; I don't remember.

Q. And that is the way in which the accounts of every railroad engaged in interstate business in this country are kept today in the United States?

A. I don't know; I consider it a defective method if it is.

Q. I assumed that, but adopting the language of your own argument, paraphrasing it, where you say Mr. Baehr, for instance, in overhead ignored the Chicago Traction Ordinance, you have ignored all classifications, including the classification of the Interstate Commerce Commission, in throwing out this item?

A. I cannot remember the classifications of all those sufficient to say.

Q. Do you know of any classification that sustains it?

A. I know commissions that are agreeing with me.

Q. Which commission, let us get its classification and see?

A. The New York Commission, first district.

Q. Any others?

3833 A. Massachusetts. I do not recall at the moment, but I think the same thing is true in the Second District of New York, and of Wisconsin, but I am not so positive about Wisconsin on that point.

Q. Now, somehow these expenses have to be met, haven't they?

A. Why, if you have to make the transfer they have to be met. I do not say you had to make the transfer.

Q. Oh, well, as far as that goes, you might go back and say we did not have to buy a holder?

A. No; it is very different.

Q. Now, then, there was an actual discount on securities—put it in another way: in the operation of this Company amounting to \$33,950.

A. Yes.

Q. This Company following the precedent fixed by the Interstate Commerce Commission and a great many other people—you concede that, don't you?

A. Yes.

Q. Charged it to capital?

A. Yes.

Q. You took it out of capital?

A. Yes.

Q. Now, did you put it into operating?

A. In regard to the future I did, considering the rate question later on.

Q. When you were figuring on the past, showing what our returns were and all that?

A. No, because I did not recognize that as a transfer that the gas consumer should pay for in any shape or manner.

Q. But you forgot in your eagerness in arguing this thing, 3834 that you stated in your report that these figures on return were based on facts and not upon your theory of what the situation ought to have been?

A. Yes.

Q. Now, then, they are not based on the actual investment, are they?

A. So far as relates to those two items which I distinctly mention here, I did not intend to deceive at all about it.

Q. I did not suggest you intended to deceive; they are not based on the actual investment, not only as to these two items, but as to a great many others?

A. I don't recall many others, nothing of importance, the rate litigation expense I believe was the only thing taken out of the operating expense and these, as I recall now—of course something may slip my memory at the moment—there two were taken out of construction.

Q. But you do recall the testimony of Mr. Hall to the effect that if you had taken actual investments and had not started with Mr. Pratt and had not thrown things out, your investment amount would run over two million instead of \$1,727,000?

A. Yes, if you had not included this hundred thousand dollars for water gas right; that dummy company invested that hundred thousand dollars to the parent company.

Q. What significance do you give to the dummy company?

A. It is a dummy out of the U. G. I.

Q. Do you know of any corporation that is not owned or controlled by the holders of the majority of stock?

A. That is true of course.

Q. Is every company where the majority stock happens to be in the hands of one person a dummy company?

A. No, but if one corporation owns another, the second is
3835 a dummy of the first, I should say.

Q. Now, to go back, where you talk about actual investment, as shown by the books, your figures which are based upon Mr. Hall's are subject to just exactly the exceptions and limitations that he reiterated as to his, are they not?

A. Yes.

Q. And they are not based on the investment as shown by the books?

A. No, in using the word exactly.

Q. Accurately they are not based on the investment as shown by the books?

A. They are based on the cash investments as shown by the books, as Pratt testified.

Q. Suppose that you are organizing a corporation today to start an opposition plant in Des Moines, would your organization expense be a capital account or what?

A. It would be temporarily a capital account, *immortized*; that is, cancelled out of the sinking fund payments as soon as possible.

Q. I dislike the way you put it exactly. I want to know what you will do with it?

A. I should charge it to capital at the start.

Q. What is the nature of the account changed afterwards—you say at the start?

A. It should be wiped off the slate.

Q. I didn't ask you that; stick to the question a minute. If that is a proper capital account when the expense is incurred, does its nature change afterwards?

A. Yes.

Q. And it becomes some other account afterwards?

A. Yes.

3836 Q. All right.

A. That is the view taken by Byron J. Arnold, and I think it is entirely correct.

Q. Do you think your testimony always needs to be supported by saying somebody agrees with you?

A. No, but I would like to have it.

Q. Do you think it adds weight to it by saying somebody agrees with you, where that man is not present for cross examination; do you think that adds weight to your testimony?

A. In this case I believe it did. I still believe I quoted him correctly.

Q. I happen to have here the Wisconsin classification for gas and on page 66, under construction and equipment accounts, intangible capital, and another sub-head, organization, it *it* says, charge to this account all fees paid the governments for the privilege of incorporation and all fees and other expenditures incident to organizing the gas utility business. This includes the cost of preparing and distributing prospectus; the cost of soliciting subscription of stock (but not for loans for the purchase of bonds or other evidences of indebtedness) cash fees paid promoters and actual cash to promoters

for services in organizing the enterprise, attorneys' fees, the cost of preparing and issuing certificates of stock and the cost of securing certificates, conveyances, etc., from the Railroad Commission, and other similar expenses?

A. That is one of the things I referred to as included in their overhead on page 29 of my report.

Q. Will you let me finish the question or will your eagerness for argument not permit?

Objected to on part of defendants as being improper?

3837 A. I thought really you had come to the close of your quotation.

Q. I had closed my quotation but had not finished my question. Would you construe that as authorizing a charge of this matter to the capital account?

A. Yes, that is the way I think the Wisconsin Commission does it.

Q. Now, then, the only reason, as a matter of fact, that you threw out this organization expense was that the U. G. I. happened to own all the stock; if the stock in the Des Moines Gas Company had been owned by other persons, you would have passed the item without any question?

A. No, I think not; only in the case of a new company I should have allowed it for a few years, but in perpetual, if the company becomes profitable enough, *immortized* it.

Q. Now, then, take these pages you have been referring to, 13 and 14, is there anything in them aside from the argumentative matter that is not shown by the testimony of somebody else?

A. No, I think not.

Q. Now take page 15, is there anything in that that does not appear from the testimony of the other witnesses, and so far as that is undisputed, except what you have either taken from Mr. Pratt or Mr. Lilley, and except what is merely argumentative?

A. That is true, save there is some union of accounts on page 16.

Q. Well, I am talking about 15?

A. Nothing on 15.

Q. I think I asked you a little about this rearrangement of the figures on page 16. Column 1 is made up of figures taken from Mr. Pratt?

A. Yes.

Q. Without any verification by you?

3838 A. Yes, I accepted his figures.

Q. You made the addition, or did you just take that too?

A. I don't remember now.

Q. Now, column two is taken from Mr. Hall's Exhibit, page 21, isn't it?

A. Yes.

Q. And column 3 is taken from the same source?

A. Yes, I think in both cases there was a little rearrangement, otherwise the substance is there, all of it.

Q. Let us see how much there is in there that is new?

A. It is in works.

Q. What about the works?

A. In one line is placed the sum of several lines on page 21.

Q. We are talking about \$205,760.39.

A. Talking about the table as a whole?

Q. The works is not the table; which item of the works did you have in mind when you made this statement?

A. The \$233,440.61 in the first column is made up of additions of items that belong there in Mr. Pratt's statement, such as the tanks and holders, etc.

Q. Now, to get back to this third column we were talking about, that is taken from page 21 of Mr. Hall, is that right?

A. Intended to be; yes, it is.

Q. And where did you get the \$205,760.39?

A. That is the addition of gas buildings and machinery \$75,220.84.

Q. That is an error, isn't—did you make those figures up your self?

A. I did.

Q. This \$205,760.39 obviously is right?

A. Yes, I was looking at the wrong column.

3839 Q. When did you make this up?

A. Two or three days ago.

Q. You don't remember how you did it?

A. I started to simply rearrange the works.

Q. Let me see if I can help you. You find in Hall's column number 6 shows March 1, 1906, to December 31, 1910 in your report?

A. Yes.

Q. You would naturally go to the same column and you will find \$85,760.39; then you add the holder to that, \$120,000, and you get your \$205,760.39?

A. That is it.

Q. Are you sure that is right?

A. Yes.

Q. Are you entirely familiar with your own report?

A. Well, I tried to throw it off my mind after I worked on it. I think that checks up.

Q. Why it does; nobody suggested it didn't; I wanted to know how you got at it and how familiar you were with it. Now there is nothing new on this page except the rearrangement of some of these items?

A. That is all.

Q. So that this figure \$1,727,675.77 is simply the adoption of Mr. Hall's work?

A. Yes.

Q. Now let us have exhibit 35 in Mr. Hall's summary, showing the actual investment. Now you entirely agree with Mr. Hall, don't you, that the total book cost is \$1,994,314.09 without adding the holder?

A. Yes.

3839½ Q. You couldn't disagree with him or agree with him very well; you haven't looked it up?

A. I wrote this when it was presented; I accepted the statement at the time I wrote it as correct.

Q. So far as that goes you have no personal information about it one way or the other any more than I have, for instance?

A. That is true.

Q. You stand in just the same position the rest of us do; you heard him testify to this and so far as we know it is right?

A. Yes; of course I looked up somewhat the basis he started with in 1895, but otherwise I attempted to make no check.

Q. In this Exhibit 35, he did not start with that basis?

A. No.

Q. You know just as much so far as any actual knowledge goes about his total of \$1,994,314.09 as you do about his total of \$1,727,625.67?

A. Yes.

Complainant offers and reads in evidence Exhibit No. 63 as follows:

3840

COMPLAINANT'S EXHIBIT 63.

Des Moines Gas Company.

Organization Expenses.

| | | |
|------------|--|----------|
| 3/31/1906. | Expenses of F. C. Morgan..... | \$69.10 |
| " | Expenses of D. D. Reinhardt..... | 117.92 |
| " | Notary Services | 6.50 |
| " | Services of A. B. Cummins re opinion respecting franchise of Capital City Gas Light Company | 800.00 |
| 6/30/1906. | Services of A. B. Cummins re articles of incorporation of Des Moines Gas Company and advice respecting same..... | 400.00 |
| 3/31/1906. | Fee for incorporation, to Sec'y of State... | 2,265.00 |
| 4/30/1906. | S. H. Quint's Sons Company for one seal press | 2.45 |
| 5/31/1906. | Allen, Lane & Scott, printing mortgage Des Moines Gas Company to Commercial Trust Company, Trustee..... | 98.00 |
| " | Allen, Lane & Scott, printing twelve interim bonds Des Moines Gas Company..... | 16.00 |
| " | Carr, Hewitt, Parker & Wright, re legal services and recording deed..... | 70.85 |
| " | Register & Leader Company, publication of incorporation notice | 45.00 |
| " | American Bank Note Company, engraving 1500 bonds | 2,015.00 |
| " | John Briar, for certified copies of publication notice of Des Moines Gas Company. | 2.00 |

| | | |
|-------------|---|----------|
| 7/31/1906. | Charles E. Morgan, services in matter of Capital City Gas Light Company and Des Moines Gas Company..... | 500.00 |
| " | John G. Johnson, services in matter of Capital City Gas Light Company and Des Moines Gas Company..... | 500.00 |
| 8/31/1906. | American Bank Note Company, printing 250 stock certificates..... | 15.00 |
| Total | | 6,922.82 |

3841 Q. Now passing to page 17, that is mostly original, isn't it, except of course you have taken figures from various sources there?

A. I merely attempt to apportion roughly the \$45,000. It does not have any special bearing on anything that follows, I don't think.

Q. Now, then, you say from this total investment of \$1,727,675.67 should be deducted depreciation; you don't have to deduct depreciation to get at the amount actually invested?

A. No.

Q. And the deduction of depreciation from investment don't give the present actual value necessarily either, does it?

A. Not if there is some appreciation that ought to be added.

Q. To assume that gave the present actual value, you would have to assume that there had been no appreciation whatever?

A. Yes.

Q. And that things had remained during a period of some thirty or forty years stationary?

A. Yes.

Q. What do you call that result you get after you took the investment and deducted depreciation from it?

A. When I said yes to your last statement of thirty or forty years, I should correct it to since 1894, in other words, that is sixteen years.

Q. I don't know that I care to discuss it with you particularly; my question was not predicated on the assumption of 1895; my question was general, that is why I used the figures more closely approximating the real life of the plant. I want to go back to the former question which I merely overlooked and I want to know what you call this amount that you obtained by subtracting from the

3842 investment what you call in your investment here your theoretical depreciation?

A. It is the net value of the investment today, aside from appreciation. There is no one word probably that will express it fully. It is net value of the investment today aside from appreciation.

Q. If it happens to coincide with value it is an accident?

A. Whether there has been appreciation is a question to be further considered.

Q. If it happens to coincide with value it is an accident, that is a fact, isn't it?

A. I don't know of any good word to give it.

Q. I didn't ask you that. If it happens to coincide with value it is an accident, isn't it?

A. Leaving out the depreciation feature it ought to coincide with value for all purposes of rate making.

Q. If it happens to coincide with value without limiting or changing or modifying the word, it is an accident?

A. If you use value as what it will sell for in the market as a property, it might be an accident.

The MASTER: What is usually said to be a coincident.

Q. Now there are one or two things in connection with this matter of depreciation I want to ask you about. On page 3685 of the record, referring to your direct examination, talking about depreciation you say: What we are after in depreciation is not at all to determine the actual depreciation from year to year but to determine how to finance the depreciation, that is the real issue?

A. Yes, I said that.

Q. That expresses correctly your attitude with reference to the matter?

3843 A. Yes.

Q. And that expresses correctly what has been your purpose in the consideration and discussion of this matter of depreciation?

A. Yes.

Q. Then you go on to say: If you were determining depreciation from year to year most of the depreciation would come the last year or two; that is, if you take the depreciation to make the real decline in the service to the Company of a given piece of property; that also is true?

A. Yes.

Q. You do not care to modify that?

A. Of course, some property will deteriorate considerably before the last year or two.

Q. What I wanted to get at, whether you still adhered to those two statements or whether you wish to modify them in any way?

A. No.

Q. Then of course, your deduction of depreciation computed upon your method, would not amount to a deduction in the actual depreciation in the property? It would amount to the depreciation in the value of the investment?

A. Yes, I think I could say yes, exactly as you asked it, that is in the value of the investment.

Q. I am not talking about the value of the investment.

A. What we are after is to keep the capital in tact I thought.

Q. I guess I know what you are after. Most of your actual depreciation comes at the latter part of your period?

A. Yes.

Q. And if you were getting at the actual conditions, they would not be shown by your computations?

3844 A. Actual conditions of value would be. You must separate rate between utility and value. The utility of the property does not suffer very much; its value has declined proportionally to the accumulated sinking fund, no more nor less by a cent.

Q. In other words, it is the sinking fund that determines value of the property in addition to the property itself on your theory?

A. Yes; providing the sinking fund has been itself in the first place properly worked out and I assume it has been by Mr. Lea and Baehr.

Q. So that on your theory that is adopted in your argument here, it is not the actual condition of the property which determines the question of the depreciation, but it is the computation which you make?

A. Always subject to one modification which I did not mention here. There may be some extraordinary conditions which were not referred to by Mr. Lea or Baehr, and therefore—which might have collapsed it before its time—but taking normal conditions as they did; they found the normal life not taken care of by repairs and that they financed by a sinking fund depreciation.

(Last question repeated.)

A. Yes, because I assume a normal condition of the property. If lightning or fire would destroy some of it, I should say you must check it up all the time; that is why I refer to the actual statement of Mr. Baehr and Mr. Lea.

Q. Let us see if we can get an answer without any argument. Is not true that so far as this defendant's Exhibit 43 is concerned, the depreciation is determined, not by the condition of the property, but by the results of your computations?

A. No more than in the case of those two witnesses.

Q. Can you answer that question without arguing?

(Question repeated.)

A. No.

3845 Q. It is not?

A. No. I recognize my answer is a little misleading, but if I cannot enlarge on it, I will have to let it stand.

Q. The theory which you advocate here is what you call the sinking fund theory?

A. Yes.

Q. And you say that you used the most conservative figure of 4%?

A. Yes.

Q. Do you know of anybody that has used a higher figure in computing a sinking fund in a case like this?

A. Yes.

Q. Who?

A. Mr. Hagenah used eight.

Q. You refer now to his testimony in this case?

A. To Exhibit 26 and several other exhibits.

Q. You say that in Exhibit 26 Mr. Hagenah adopts 8% interest as the basis for a sinking fund computation in a case like this?

A. So I interpret his exhibits; I may not have understood them.

Q. You want to stand on your statement, don't you?

A. I think that is what he did.

Q. Going back, you say on page 3687 that you used the most conservative figure of four per cent. Do you know of any other

instance than Hagenah where anybody in your experience has used a higher rate?

A. I do not.

Q. So that the rate you have taken and which you have designated as most conservative is the highest rate you know of being used outside of this case?

A. It is the common percentage, but it is a common rule to put depreciation into the property where it earns more than 4%; 3846 4% is the common sinking fund.

Q. It is not a rate that ought to be designated most conservative?

A. I consider they could put in 5% without difficulty.

Q. It is not a rate that ought to be designated as most conservative?

A. It is much more conservative than what the company can do—

Q. Will you please answer the question?

A. It is not the most conservative imaginable, because they could make it 3%.

Q. Will you please answer the question? (Question repeated.)

A. A conservative, rather than most conservative would be better.

Q. To designate it as most conservative would mislead people who are not familiar with these matters?

A. Well I think in connection with the pages along side of it in the report it is not misleading.

Q. The result of your sinking fund method as you have applied it in your argument here has to upon your theory keep the capital unimpaired?

A. Yes.

Q. And leave the owner without any return on it?

A. He has the ownership of the proceeds of his sinking fund investment; that is his.

Q. Now your sinking fund theory here contemplates setting aside each year such an amount as that at the end of the period you will have by compounding it your capital unimpaired, 100% of your capital?

A. Yes, at the end of the assumed life, this case, 36 years.

Q. That is the theory?

A. Yes.

Q. You set aside one dollar, for instance, today, and you take that dollar and the earnings on that dollar for the period to 3847 the end of the life, and you set aside another dollar in a year and so on, and when you get the aggregate of these dollars and the aggregate of these earnings, you have your capital unimpaired?

A. Yes.

Q. Now, then, in the meantime you deduct the amount of this depreciation from the amount upon which you figure your return here?

A. Yes, I do.

Q. Now I call your attention to Exhibit 64, which is purely arbitrary, in order to illustrate this graphically. Now we will assume a

twenty years' life and the figures, 1, 2, 3, 4 and up to 20 at the bottom of the chart indicate the years and then the 100% and 95% and so on indicate the condition of the property. Now upon the straight line theory, you will notice in this chart I have given 5% per annum?

A. Yes.

Q. On the straight line theory, at the end of the year, the investor would have 95 cents left in his plant upon which you grant him a return?

A. He would have more.

Q. Assuming now that this is a straight line?

A. Oh, yes; then he would have 95.

Q. And that is the amount on which you grant him a return?

A. If you accept the straight line, but I do not accept it.

Q. For the purpose of this question we will have to accept it. Assuming the straight line depreciation, your investor would have at the end of the first year 95% of his investment in there earning the return?

A. Yes.

Q. He would have had a 5% return which he could invest otherwise and earn a return on it?

A. Yes.

3848 Q. So that he would have 100% of his investment earning a return?

A. Yes.

Q. Now at the end of the second year he would have 90% in the plant earning a return and 10% out of it earning a return?

A. Yes.

Q. At the end of three years he would have 85% in and 15% outside?

A. Yes.

Q. And so on so that during all the period if he got the straight line depreciation he would have 100% of his investment and would be in a position where it would all be earning him a return?

A. Yes.

Q. Now, then, if you take it on your theory, suppose your plant depreciates as rapidly, he would have at the end of the first year 95% in the business?

A. Yes.

Q. Then he would have say, two or three per cent that you had invested.

A. Yes.

Q. But that would not earn him any return, because you got to take the return on that to return his property to him?

A. At any time, I assume he has title to it and could draw it out.

Q. In order to return him 100% at the end of the period, you must add to what you took out for depreciation all that amount so taken out earns?

A. Yes.

Q. So that at the end of one year on your theory, this investor would have 95% of this investment paying a return to him?

A. In the plant, yes.

Q. He would not get a return outside if he took the return on your depreciation, then he would not have 100% left at the end 3849 of the term, would he?

A. I depreciate the investment only to the extent of the proceeds of the sinking fund. I do not depreciate the investment 5% a year.

Q. You are getting away from my question. My question is this: Your investor earns at the end of the first year only on the depreciated value of his plant, if he wants to have his capital unimpaired at the end of the term, on your theory?

A. Yes.

Q. That is undoubtedly true, isn't it?

A. But he may be earning on the sinking fund investment just as much if he puts it back into the plant.

Q. But the sinking fund earnings must go into the sinking fund to preserve his capital unimpaired?

A. That is, assuming that he adds it outside in a 4% investment.

Q. What I want to get at is this: on your theory, and you say here in your testimony, that the company is entitled, as against the public, to have this fund invested on this 4% basis, and you have got to keep to that to work this thing out to its theoretical conclusion?

A. I can see where you may have misunderstood me.

Q. You say on page 3687 the consumer should grant them enough in rates so that in the most unprofitable method of investing a depreciation fund, namely, a 4% sinking fund, they could cover their costs, and if they can make more than that, that is their gain which I should say they would be entitled to.

A. Yes, but it is the difference between the four and eight that makes the point you are making.

Q. If you will forget the point I am making, in other words, cease to be an advocate, you will get along very much more rapidly, to say the least. To go back, at the end of the first year you 3850 allow this investor a return only on the depreciated property, do you not?

A. Yes.

Q. Not on his original investment?

A. That is true?

Q. Now, then, if he is to have his original investment unimpaired at the end of the term, he must take the fund that you took out for depreciation and add to that fund to the sinking fund all of the interest which what you took out earned?

A. He must add the interest on the sinking fund certainly. I do that.

Q. So that at the end of the first year, with an investment of 100%, if we assume we took out 5%, he is only getting a return on 95%?

A. Yes.

Q. But his investment is 100?

A. Yes; but his other 5 has gone into the sinking fund.

Q. But he is getting no return on that?

A. He is getting according to what I call the sinking fund method, 4%.

Q. If he takes that 4% return which the sinking fund is earning, then he won't have his capital unimpaired at the end of the period?

A. No.

Q. Now, then, at the end of the second year on this basis, he is getting a return on 90%.

A. Yes.

Q. He is going to have his investment unimpaired but that is all the return he is getting?

A. Yes.

3851 Q. So that if you run it through the 20 years, his average return on this 5% basis would be on 50% of his investment?

A. On the straight line method, excluding the sinking fund earnings that would be true; I mean assuming 5% on a straight line course.

Q. So that if a man had \$100 invested for 20 years in farm mortgages at 6%, at the end of that term you would have \$100; if he didn't spend any of his return he would have 120% in interest?

A. Yes, I should think so.

Q. While if he had invested it in a public utility, on your theory, if we assume this depreciation was charged off equally here, he would have his capital unimpaired but would only have a return on half of the money or for half the time?

A. That is why the investment at 4% I think is misleading, if the investment is making 8. We may assume he can find an 8% investment for his sinking fund.

Q. Let us stick to the 4%. You say that is the highest rate as far as your information goes that has been adopted for a sinking fund computation?

A. Yes.

Q. So I think that is a reasonable rate in use here. To get back your man cannot take that return that this sinking fund is earning without getting out at the end of the term with his capital impaired, can he?

A. Oh, no; he cannot do that.

Q. So that if he has to have his capital unimpaired at the end of the term, on your theory, on the theory on which you made this statement, he will not be earning on his entire capital during the whole period, and he will be worse off than if he just made a loan?

A. If you assume that he is going to set aside just the
3852 amount you referred to, his capital would be unimpaired always through the end of the 20 years.

Q. His capital would be unimpaired during the entire period?

A. Yes.

Q. Take the illustration and say he has run ten years on your sinking fund theory; you say on your 20 year life you would have 30% at the end of ten years; so that at the end of ten years he would be earning on 70%?

A. Yes. The other 30 would be in the sinking fund.

Q. But he would not be earning on it at all; you don't give him any return on it, do you?

A. Why at 4% he is only getting half the return he is getting on his investment—

Q. Assuming now that he adopted the plan of financing that you suggest here and invested this in a 4% sinking fund basis, on a 4% basis, at the end of ten years he would have his capital unimpaired, but you allow him a return on only 70% of it?

A. I can't see anything in that except—

Q. Can't you see whether it is true or not?

A. I can see in that the argument for computing the depreciation back into the business as is commonly done, so that it will earn as much as the other capital.

Q. Will you stop your argument and assume that the depreciation is not put back into the business; assuming it is invested in a 4% sinking fund basis; that at the expiration of ten years amounts to 70% of the value of the plant; tell me whether at that time the capital being unimpaired you have allowed them to earn on anything more than 70% of it?

A. I should have to think that over. I don't see myself just how to answer it, but I say, I was going to add if he is entitled
3853 to earn on the full value of his investment at the end of the 20 years, he has got double his investment and he has got his sinking fund of 100% and the consumer has given him \$2 where he had \$1.

Q. Suppose he invested this in 6% mortgages we talked about, at the end of the time he would have his entire investment?

A. Yes.

Q. He would more than double it; he would have 120% of it in interest?

A. Yes.

Q. That would be just what he is entitled to?

A. Yes.

Q. Let's go back to our case. The 120 is the interest and he has had his full return during the entire period?

A. Yes.

Q. To go back to our case, at ten years we had 70% earning and 30% protected by a sinking fund but was not affording any return to the investor, at the end of another five years you would have about 25% earning, and you would have more than that at the end of another five years, you would have 45% earning probably?

A. Very possibly.

Q. And there would be then 55% that was in a sinking fund to take care of the capital, so that the man would have his capital unimpaired, but would be earning only on 45% of it, on your theory?

A. I should have to think it over further. It wouldn't mean the capital was worth any more than I have taken it.

(Last question repeated.)

A. Well, it may be; I would have to think it over further.

3854 Q. By the time he got to the end of the period he would have his capital unimpaired but wouldn't be earning on anything?

A. His capital would come back to him then, or he can have it back any time from the sinking fund.

Q. So that the difference between your method of computing depreciation and the method that has been adopted, you say by Mr. Hall, and Professor Marks, is that your method results in only giving to the investor a portion of his return?

A. Well, I think so far as there is a difference it is due to the fact that a pure sinking fund method does not give you the same return you would get by putting it into a property, which I concede you have a right to do.

The MASTER: It seems to me you are wasting a lot of time on this argument. I think I understand your theory and his and I think anyone will understand them.

Mr. GUERNSEY: I do not like to run counter to the suggestion of the court; if I do, I hope the Master will give me credit for good intentions.

Q. Now, I want to apply this to your report a little. In all of your computations on net investment the net investment is not upon the actual amount which the investor has put in, but it simply on the amount less your sinking fund?

A. Yes.

The MASTER: It seems to me the only answer that is possible to give to the question is as Mr. Hall stated. Mr. Hall said that while it is true that is depreciation, that depreciated capital would still earn the same amount of money; that was practically his answer. That is the only answer that can be made to your proposition to my mind; that is to say, the depreciated machines or machinery was earning the same amount.

3855 The complainant now offers in evidence Exhibit 64.

Q. Now on page 19, you give at the top of the page the amounts charged off by these various witnesses?

A. Yes.

Q. And you say that there is evidently what seems to me a typographical error below here: the question is how much to allow the company to set aside yearly from operating expenses to finance depreciation in the most expensive way to the company, at least advantageous to the consumer. Is that what you mean?

A. It is the most expensive to the company to finance by a sinking fund—

Q. All that I want to get at is whether this language here is what you intended?

A. I think it was, it seems to express what I still think on the subject.

Q. How do you get the figure \$2,580,540 as Mr. Lea's cost of labor and material?

A. In one place in his exhibit I think I saw some figures like that.

Q. The reason I ask the question is that it does not agree with our computation by \$60,000 or \$70,000?

A. I think it may be connected with his legal and organization expenses \$68,000; it may be that was included.

Q. No, but this was too low; there is a difference there of some sixty odd thousand dollars and I wondered if you knew how you got it?

A. I had his exhibit before me and I thought I had it the way he had it. (Witness computes.) I get the same figure again.

Q. Where do you get it?

A. In his introductory letter to Mr. Haines in the beginning of his exhibit. I took his fourth line: Building \$106,934; Works equipment \$510,179; distribution system \$1,963,027. These three together make \$2,580,540. That omits real estate working capital and going value and really omits his organization and legal; they were not considered by him subject to depreciation.

Q. You took here Mr. Lea's amount and took a 4% basis and from that got a life?

A. Yes.

Q. But Mr. Lea did not compute his depreciation that way, so that his is not based on that life?

A. He reached the annual investment necessary at that figure.

Q. What I am getting at, this 34½ year is not his composite life?

A. No; this is worked backwards from his total. Of course the way I took it is not the natural way to arrive at it. In the first place you have to take each item by itself and having got your result, then you can take your—

Q. Mr. Lea figured his sinking fund with different rates and with varying times of investment?

A. Yes.

Q. You say at the top of the page that Mr. Randolph estimated depreciation \$282,331. on \$2,520,514. of depreciable property. This implies 1.12 per cent yearly payment to a sinking fund and an average life of nearly 39 years. Do the figures Mr. Randolph gives imply anything?

A. In the sense that he didn't use a sinking fund, it does not. But to reach that depreciation by a sinking fund would require 1.12 per cent.

Q. You have got to assume your rate first?

3857 & 3858 A. Oh, 4%; I thought it stated it here somewhere. On the previous page, 19, I refer to a 4% sinking fund.

Q. On page 21 you worked out your theory beginning with 1895?

A. Yes.

Q. Now, how did you get at the amount of your sinking fund?

A. The percentage 1.289 you mean?

Q. Yes.

A. I took 36 years as an average composite life. It was somewhat lower than Mr. Baehr said, and about the average of the way

I worked out these three tables as shown on page 19. Taking 36 years I look into the sinking fund table to find what rate per cent, 4% interest, was necessary to cancel the principal in 36 years.

Q. That is what I supposed; so that it has no relation whatever to actual conditions; it is simply a figure that is taken from the life?

A. Like all such sinking fund tables it is of course a theoretical estimate.

Q. And does not purport to, and does not in fact represent actual conditions?

A. It is merely an attempt to show how the depreciation could have saved to the company by such a fund.

Q. And the figure you get by making this computation is the basis for the four cents a thousand that you use later?

A. Yes.

Q. So that four cents a thousand is based upon purely theoretical computation and not upon actual conditions?

A. Yes, based upon the application of the sinking fund table.

Q. You say, we take a life of so long and then we take four per cent, and then we look at a table and that shows what per 3859 cent we have to invest?

A. Yes, taking 36 years as an average life is not a pure guess.

Q. That is predicated on Mr. Baehr and Mr. Lea?

A. And on previous experiences in many cases. Gas engineers very rarely place a shorter life than that.

Q. Now there is one thing you testified to yesterday in connection with this table that was misleading to me. I doubt whether it is just what you meant. You referred to the item \$1,667,215.24 at the end of the page, in other words, the plant items is not really worth \$1,667,000 which appears on the books, but \$241,000 less which might have been accumulated by this small amount in the sinking fund; and you refer to that \$1,667,215.24 as the value of the investment at that time. Now that is incorrect, isn't it?

A. Working capital is not in there.

Q. But aside from that it is incorrect, isn't it? You gave us elsewhere the working capital, as \$1,727,625.

A. You mean the total investment?

Q. At this same time?

A. Yes, that included the working capital.

Q. That is not an explanation of it, is it?

A. I am not sure that it is.

Q. See if you can tell us what the explanation of that is?

A. The one is an average investment, while I think what I was using on page 24 is the investment at the end of the year.

Q. Do that this testimony I referred to, where you treat this \$1,667,215.24 as the investment at the end of 1910, ought to give \$240,000 was based on a misapprehension?

A. Yes, I could have used the other figure.

Q. Your trouble is right here: you add in 1910 only 3860 \$60,460.44 one half of the additional investment, and to bring this up to the investment you should have added that amount again?

A. Which I did add on page 24.

Q. Which you did not do in your testimony; that is right?

A. That is right; I did not have that in mind when I answered the question.

The MASTER: Mr. Hall's testimony that we referred to a while ago is found on page 3450, I think.

Q. One other thing I want to call your attention to in connection with these comparisons of depreciation: Lea and Baehr take nearly or a 4% basis?

A. Yes, I think Mr. Baehr does take exactly that.

Q. But both Lea and Baehr at least base theirs on a life, rather — on an age of the property which is entirely dissimilar from yours. You start with 1895 and they took the actual age.

A. They took things today and estimate the present value and the amount in the sinking fund necessary to meet the yearly depreciation.

Q. They in making their computations have taken the actual ages of the portions of the plant involved?

A. I think so.

Q. Now, you have not?

A. No; but a comparatively small portion of depreciable property older than 1895.

Q. That is something that would have to be taken into account in drawing any inferences from comparisons to these various results, as well as the fact to which you call attention on page 22 of your argument that the depreciation figured by you is based upon a very much smaller amount than theirs?

A. I should say that should be taken into consideration, although I do not think it would make much difference with the result, since it is in harmony with such average life of such property.

Q. Now you say here on page 22, just referred to, that the Company's witnesses in connection with depreciation took into account or assumed a value greater than the cost?

A. I said that practically at the bottom of the page.

At this time an adjournment was taken until 1:30 p. m.

3861

1:30 P. M., FRIDAY, *September 22, 1911.*

EDWARD W. BEMIS, continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Q. Taking this up where we stopped this morning, you say on page 22 making this allowance of appreciation the estimates of Messrs. Lea, Baehr and Randolph would not exceed the figure of \$241,117 here taken. Do you base that on a computation?

A. That was a rough estimate.

Q. What Prof. Marks calls rough work?

A. That was a rough estimate on page 22. The ratio between the value of the depreciable property as I reach it and the value with the overhead, paving, etc., allowed by Messrs. Lea and Baehr,

is such as to amount to about the same percentage as represented by the difference between their depreciation of 300, to 380,000 and the 241 which I have taken. I think it will show that on that basis the 241 would be a little high.

Q. That has not been computed then?

A. Not accurately.

Q. Now your next table on page 24 simply works out this depreciation theory, that is all there is to it isn't it?

A. Yes.

Q. You take Mr. Hall's figures for the investment?

A. Yes, sir.

Q. Then you work out in the concrete this theory?

A. Yes.

Q. So that there is only one thing I think I care to refer to there the actual deductions for depreciation are \$191,328.22 are they not?

A. I added them up and reached about that figure some-
3862 where, I don't remember whether I put it in here or not, I think not.

Q. I think you did. Turn to the top of page 22, the second line.

A. That is right, I did insert it.

Q. That is the actual amount that you charged off out of the earnings?

A. Yes.

Q. And the difference between that \$241,117.06 is the accumulated interest?

A. That is right.

Q. And what you deduct from investment is the \$241,117.06?

A. Yes.

Q. You next take up the matter of working capital and you reach the conclusion of \$80,306.10. How do you get that?

A. I take 15 per cent as I recall it of the gross income of 1910 of the company. I believe I state it here the second paragraph
page 25.

Q. Well do you remember how you did get your working capital?

A. I took fifteen per cent of that figure.

Q. Of what figure?

A. \$538,893.

Q. Now turn over the page, didn't you work it out from December
31, 1894?

A. Yes, but I worked it out to reach that figure, that is I decided that \$80,306.10 at the percentage given or 15 per cent, and considering that the amount reported by Mr. Pratt December 31, 1894, of \$37,106.10, then as I stated at the bottom of page 26 to reach the figure of \$80,000 in sixteen years would require substantially \$2,700,000 a year with the exception of the last year.

Q. How much did you add the last year?

3863 A. On page 27 next to the last column I think it is about that is \$2,700.

Q. In other words you found that somewhere the Wisconsin commission had said they would allow fifteen per cent in a case?

A. In the Madison gas case last year.

Q. So you took fifteen per cent.

A. Yes.

Q. Did you think that the fact that the actual working capital of the company for the last five years has averaged very much more than that is a material factor at all?

A. Well that was the average working capital as you worked it out with Mr. Hall for January 1st., whether it is the average for the year we don't know.

Q. In the same way you don't know whether your basis for instance of \$37,106 in 1894 is for some specific date?

A. That figure was taken by Mr. Pratt as of January 1.

Q. Now then as a matter of fact when you get simmered down these three pages on working capital it amounts to this don't it, so far as this case is concerned that the Wisconsin commission in the Madison case took 15 per cent and you therefore charge 15 per cent of what now?

A. Of the gross income.

Q. Of the gross income for the year 1910?

A. 1910.

Q. And all the rest of it is an arbitrary adjustment of that figure \$80,306 to Mr. Pratt's figure in 1904?

A. Yes.

Q. And has no bearing whatever on the actual facts?

A. No. I think Mr. Hagenah did the same thing with a different figure.

Q. Well do you have to have somebody do something to justify you doing it?

3864 A. No, but again as I said this morning, it is always interesting when your view is taken by another.

Q. Passing that digression for the present and getting back, all of that page 27 is immaterial except the last line isn't it even from your point of view?

A. No, I don't consider it immaterial for the general development *much* have been substantially along that line if I am right in my conclusion as to the last line. The business increased more rapidly the last few years than it did the first so relatively the working capital might be considered a little too large here in this column for the first few years.

Q. The result of this column is to make the working capital on December 31, 1909, of perhaps a hundred thousand dollars under the actual capital at that time.

A. As I remember your witnesses testified to \$150,000.

Q. No, our witnesses did not testify, your recollection is in error as to December 31, 1909. The only witness who figured that out for us was Mr. Hall.

A. 1910 was when they gave an estimate.

Q. Yes, but I was talking about 1909.

A. I thought Mr. Hagenah gave a computation for 1909.

Q. Mr. Hagenah, I don't recall any attempt on his part to figure it then.

COURT: He gave it \$128,000, but I don't remember the date.

A. I think he added a certain amount each year over a certain straight line until he reached 1910.

Q. That is not material so far as my question is concerned. We find this that by Exhibit No. 57 which was based upon Mr. Hall's

Table, Exhibit "F" the average working capital for the five 3865 years which ended December 31, 1910, including current liabilities less bills payable was \$197,229.97.

A. I accept your reading of it. I have not the exact figure in memory.

Q. If you wanted your table on page 27 to show something correctly with reference to the books, you would have to add about \$120,000 to that \$77,606 there wouldn't you December 31, 1909?

A. If I wanted to take all the books covered of cash on hand I would I suppose.

Q. I don't know just what you mean by that limitation.

A. I mean part of that cash on hand I believe was there for construction and hardly would be called ordinary working capital in the operation of the business.

Q. You also remember do you not that by Exhibit No. 58 Mr. Hall computed the average working capital for the five years that ended December 31, 1910, upon his own basis for computing working capital and made that average \$121,708.13.

A. Those are about as I remember them and I assume they are correct without looking it up.

Q. So if you make this table on page 27 conform to the facts it would give you a decidedly different investment result here would it not?

A. That average would be increased by that computation.

Q. And that would be the difference between what the books show on the subject and this theoretical working capital which is not shown anywhere?

A. Would be about \$40,000 difference I should judge.

Q. So we cannot accept this table on page 27 as showing anything more than a theory?

A. That shows the theory of working capital applied 3866 to—

Q. We can't accept it as showing facts?

A. It is not based on the books of the company with the exception of the first year although the last year is larger than Mr. Hall found the books of the company. The intermediate years have no relation to the books of the company.

Q. And as showing the general result is also different than the actual facts unchanged would give you?

A. So far as relates to the three or four years preceeding the last it seems to be true. I don't have any information on the earlier years. I am pretty sure that in the first four or five or ten years perhaps following 1895, the reverse would be the case.

Q. Then that calculation is not predicated on any knowledge of the facts?

A. No, predicated on the growth of the business.

Q. Now to get back to where I started before this digression, do you think that the actual working capital that has been used in the business for the last five years would have any bearing at all on the determination of the question of what would be a fair and reasonable amount of working capital?

A. It would be some indication of it.

Q. And you have ignored it have you not?

A. I did ignore it except as to the last year and in fact it is more than the last year's showing.

Q. And the result that you get is on one theory less than one half of the average working capital for the last five years and on another theory about sixty six per cent of it?

A. Yes, sir.

Q. Now then you said that the Wisconsin commission allowed fifteen per cent of the gross income?

3867 A. Yes.

Q. That was the gross income of the company for the year 1910 as shown by Mr. Hall's report, turn to Exhibit "C" in Mr. Hall's report and you will find it.

A. \$566,540.47 if I read that right.

Q. And what did you state in your report was the total upon which you figured your fifteen per cent, turn to page 25.

A. \$538,893.00. At the moment I don't remember the reconciliation but I am quite sure that I had that figure from Mr. Hall's report in some form when I made this out the other night.

Q. Will you reconcile that for us if it is something that can be reconciled?

Q. That would add something to your fifteen per cent?

A. The difference between these two figures or about \$28,000 fifteen per cent of that would be a little less than \$6,000.

Q. Be closer to 4,300 wouldn't it?

A. Yes, it would.

Q. And there again we seem to have gotten the worst of it?

A. That was a small amount.

Q. Yes, just a trifle, but we seem to have gotten the worst of it?

A. That seems to have worked against you, yes.

Q. On page 28 you commence your argument on overhead by the statement of the company's position. That is the fact isn't it?

A. Yes, sir.

Q. And put them there for the purpose of indicating clearly what it is you intend to refute?

A. Yes.

Q. And then you take up and analyze Mr. Lea and Mr. Baehr and then after making your calculations you go and argue the proposition from the results of it, isn't that right?

3868 A. Yes.

Q. Now then in the first place I want to ask you this if a man were constructing a plant like the Des Moines Gas plant could he avoid expenses on account of engineering for instance?

A. No.

Q. Could he avoid expenses on account of lost interest?

A. No.

Q. Can you assume that he could avoid expenses on account of taxes charged against his property if it took two or three years to construct the plant?

A. No.

Q. In other words, you did not controvert the proposition as I understand your position here that every single item of expense that these men mentioned is an expense that would be incurred in the construction of such a plant as this?

A. I think they exaggerated in the amount, but the nature of it is there.

Q. It is all there isn't it?

A. I only say it may be exaggerated in the amount.

Q. So that your argument here is devoted solely to the question of amount as to these charges?

A. No.

Q. It is not?

A. No.

Q. Then what do you take up besides the question of amount here in what other respect do you attack their position?

A. That is not the correct theory in fixing rates, the consumer has paid for it all in operating expenses.

Q. That is a mere matter of argument as to the legal proposition?

A. I suppose it is a matter of argument?

3869 Q. As to the legal proposition involved as to whether that is a proper factor to take into account?

A. Yes, and you asked me my reason.

Q. I want as far as I can to avoid argument of the legal proposition, it would be interesting I think to us, but the other people might get bored. Your statement now before the court and Mr. Lea differs quite radically from his figures on the amount and I wish you would tell me where you get it so we may reconcile the difference.

A. Well I can't right off hand. I will work that out.

Q. Did you work that out yourself or someone for you?

A. I worked every one of them.

Q. That runs 87,000 overhead on new paving according to Mr. Lea against your 111,000 or 112,000?

A. I will work that over again tonight, but can't off hand now.

Q. Can you tell us now on what theory you did it?

A. Well I think I took the same proposition of his total overhead as his new paving was of the mains and services.

Q. Then you didn't work it out by items, but adopted some percentage theory?

A. I think so.

Q. And you are not entirely confident that that theory was correct are you?

A. He gave in his testimony a statement that he as I understood him that the same overhead was allowed on the paving as on the mains and the same rate of depreciation and I thought that justified me in taking out the overhead from the total mains and services on the same ratio that the paving was.

Court: His calculation of taxes and interest varies.

3870 A. Yes, but I did not understand it varied as to paving on mains underneath.

Court: The only way you could get at it is to go through each one.

A. I have found by the way that reconciliation that you asked me for a minute ago.

Q. All right what is it?

A. You asked me how I reached the \$538,000 of revenue. It is the same figure used on page 43 is referred to on the previous page as taken from defendant's Exhibit 30, page 29, where it appears, that is in Mr. Hall's exhibit page 29.

A. Does that appear as gross revenue for any years or revenue of sales of gas only?

A. Total revenue I assume I asked Mr. Sangster what it meant after Mr. Hall had gone and he said it meant the total gross revenue.

Q. Turning to the balance sheet you find it does not?

A. The other exhibits seem to indicate that difference you speak about. But that is how I got at \$538,000 referred to as total revenue at the top of that column.

Q. You misunderstood that part of Mr. Hall's report and so were misled?

A. Apparently.

Q. Would the fact that this \$111,898 which you call overhead on new paving according to Mr. Lea is not in fact his overhead on new paving affect any of your conclusions that are suggested later under this head?

A. I don't think so. I built nothing on these figures in any tables.

Q. You get at Mr. Baehr's overhead on paving in the same way don't you?

A. I think not. I think Mr. Baehr separated his base figures from his overhead.

Q. Let me read you a sentence out of this part of your
3871 argument, it may be remarked that the overhead on paving by each of the above witnesses was found by charging off overhead of some per cent of their total allowance for paving new as they allowed for overhead in the entire distribution system. Do you think now you arrived at each of them in the same way?

A. I don't remember exactly.

Q. What do you say as to whether we would be justified in accepting what you say here on page 28?

A. That percentage undoubtedly I worked out as I state there, but whether I got at his with percentage or whether I found it from Mr. Baehr's report can be determined very quickly I suppose. He gives his base figures—

Q. You know what the question is don't you, the question was whether we might accept the sentence preceding this one that relates to the percentages as correct?

A. I am not sure whether I found it from Mr. Baehr's report or only for Mr. Lea's in that way?

Q. Can you give us any idea as to how you did get at the figure, \$112,669 for Baehr so we may know the theory and check it?

A. I think I can in a minute. There is a page here in which he does separate base from the total I think on paving.

Q. You mean Mr. Baehr?

A. Yes. I may be wrong about that. It may be that I found that only by computation but after you asked the question I thought that he had made a separation which, however, I do not find and it may be that he did not make it.

Q. You checked his report carefully?

A. Yes. He has a page on paving which I have not been able to come to yet.

Q. Turn to page 113 of Mr. Baehr's report and follow—
3872 ing pages and see whether they help out any?

A. There is where the paving occurred, I have not a marker in there and I kept passing it. I thought I had marked all the pages I had used, but I had no marker in there. You want me to compute the paving that is there?

Q. Page 113, yes.

A. You can compute the base figure for paving over services and the base figure for paving over mains and then you can turn to another part of the report and find the base figure for both paving and mains and full value or reproduction new value as he calls it for mains and paving, find what percentage one is to the other, and then bring that percentage back and apply it to this paving. That is what I did.

Q. The way to get overhead on paving would be simply to subtract the base on the paving from the total paving wouldn't it. Then we would not have the inaccuracies that arise from the percentage method?

A. Yes.

Q. And on paving over mains that makes a difference of a trifle less than \$78,000 doesn't it, \$272 from \$350?

A. \$77,986 is his base figure—difference between the base figure and full value of paving over mains. And over services—I don't know as you were asking about that.

Q. Yes, we will get services too.

A. Paving over services \$9,405.

Q. So that the aggregate would be a little under \$90,000?

A. \$87,391.

Q. Instead of your \$112,669?

A. Yes.

Q. That of course would change the overhead on the remaining property the overhead on the rest of the property new according to Baehr.

A. I should think so.

Q. And would add to it?

A. Yes.

Q. Now then what are these last two items here overhead thus depreciated according to Lea, is that the overhead on paving?

A. I took off that depreciation.

Q. That is not the overhead on paving is it?

A. Oh no.

Q. Now is it all his overhead, this report here is not clear?

A. No. I think it is only overhead on the rest of the property.

Q. Are you sure?

A. I can tell in a moment here. It must be the overhead on all the property. No, I figure it \$388,739 by taking off the 14.73 per cent from the \$455,892 and that is so near the \$387,739 that there may be some slight mistake in the computation, difference of less than a thousand dollars, in fact just one thousand. Perhaps in copying or perhaps in adding.

Q. You give Lea's total depreciation, page 19 of your argument as \$380,000 don't you?

A. The only question in my mind is whether that was entire depreciation or depreciation outside of paving.

Q. Well what do you call it here?

A. I refer to it as if it were all the depreciation.

Q. Your reference here as to Lea's exhibit introduction isn't it? If we turn there we can find out what you mean I suppose.

A. Yes that was the total, I remember it was a case of exact subtraction.

Q. As you compute it on page 28 you find that Lea's depreciation leaving paving out is about \$8,000 more than this don't you?

3874 A. No that figure of \$387,739 is not depreciation. It is overhead or intended to be, so stated overhead that is with this depreciation taken out.

Q. And does that \$387,739 include the overhead on paving or not?

A. It was intended to.

Q. Can you tell us whether it does or does not?

A. I can I think in just a moment. I think yes.

Q. Are you certain about it?

A. The \$455,892 is overhead as stated here. Then 14.73 is taken out of it giving the \$387,739 in the same way the 14.75 per cent of Mr. Baehr's was taken out of \$502,000 to get \$443,839.

Q. Is your final conclusion these items \$387,739 and \$443,839 include overhead on paving or that they do not?

A. I think they do not. They were intended not to.

Q. Mr. Lea just showed me a memorandum which I think he prepared at the suggestion of the Master which does not seem to agree with the figure you have here \$567,780. Do you know how you obtained that figure?

A. I will give you the result in the minutes.

Q. I don't care to have you make the computation over again if you can tell us how it was done so as we can reconcile the two things.

A. The reproduction cost is given new by Mr. Lea on the first page of his report for depreciated property as \$2,580,140 and net construction cost is given on page 13 of Mr. Lea's report as \$2,272,015, subtract that from his total gives \$308,125 as I make it now. That is on reproduction cost new. That would have to be produced by the ratio which his present value of these items bears to the totals of the same items.

Q. But aren't you—I don't want to interrupt you, but you take from the introduction here all of the items?

A. Excuse me, I made a mistake in not adding legal expense which I take as a form of overhead.

Q. But you exclude real estate page 1, and include it in the total page 13 so that would be the way — get it can it?

A. I consider the organization and legal expense a species of overhead.

Q. I am not talking about that. You, as I understood you, said you took the depreciation items from the introductory letter?

A. That is right.

Q. That would not include real estate?

A. No.

Q. Real estate is included in the figure you take from page 13 isn't it?

A. That is true.

Q. So you could not on that basis reach a correct conclusion could you.

A. No.

Q. That is what I want to call your attention to.

A. I had not realized that before.

Q. It struck me you could not get a correct result that way? Can you tell us how you did figure that \$567,780 or did you figure it yourself?

A. Yes, I did it all, sorry I threw my work away.

Q. That is rather unusual?

A. Well I was working late at night the other night, I suppose I threw it away, I might be able to find it. I could figure it over again.

Q. Tell us what theory you did it on, tell us how you arrived at that result if you know.

3876 A. You are referring to overhead?

Q. \$567,780?

A. I should have to begin back to the same two tables, page 13 and page 1, and I can't see how again looking at it why it was not right to do as I believe I did do subtract the total on page 13 from the total on page 1 and then add -68,000 to it because on page—

Q. You don't mean that do you? The total on page 13 is about two and one fourth million and it is over three million and a half on the other.

A. I mean of the same items covered on page 13, real estate because he charges for overhead on real estate, buildings, works in Des Moines and distribution system. I think the way to do that is to take the reproduction new of these four items on page 1 from which deduct the net construction cost on the next four items on page 13 and add in organization and legal expense of \$68,025.

Q. Is that the way you got this \$557,780?

A. That is the way I should have got it, I rather think I did get it that way.

Q. Don't you really know?

A. No, I don't remember to say positive.

Q. Don't want to say so without saying what the result would be?

A. No, I don't want to say so because I don't remember. I tried several times to work out overhead and paying on each witness and I don't remember how I got them, but I think that is the way it should be done.

COURT: My recollection is that Mr. Lea used the organization and legal expense as separate items and that 15 per cent taxes and interest were added and it is not added in by way of percentage
3877 overh-ad charges. Mr. Baehr did add in by way of percentage. I mean the organization expense and that Mr. Randolph just used 20 per cent of the whole thing. I may be wrong but I think that is the way.

Q. Do you remember how you got Baehr total from here?

A. I got the \$567,780.

Q. Oh you have it, tell us how you get it?

A. I added the real estate buildings, works, equipment and distribution system on page 1, and then subtract the net construction costs of the same items on page 13, and it gives \$567,780, but that is not large enough, I should have added \$68,023 for organization and legal, making \$635,801.

Q. That would throw out all your other figures on Mr. Lea right straight through?

A. Yes. That organization and legal should have been included straight through and was not.

Q. Do you remember how you got Mr. Baehr, \$615,603, do you remember how you got that?

A. I don't, but I think on looking at his report for a moment I can tell you. That figure is given as the total by Mr. Baehr himself on page 19 of his exhibit.

Q. And that is where you obtained that?

A. Yes.

Q. Now you say this was 26.6 per cent. What do you mean by this clear down at the bottom of page 28?

A. The overhead for the entire distribution system which includes both mains and services was that per cent as I figured it at the time any way of the entire reproduction cost new?

Q. Then that refers to the distribution system solely?

A. Yes, it says so the entire distribution system.

3878 Q. The entire distribution system is in the preceding sentence.

A. Yes. But the next sentence is intended to refer to it.

Q. This means overhead for the entire distribution system?

A. Yes.

Q. Now you say that Mr. Lea's estimate and Mr. Baehr's on this overhead ignores the Chicago traction ordinance. What do you mean by that, that they should have been governed by the Chicago traction ordinance and not by their own judgment and experience?

A. It should perhaps read that this is not in harmony with the Chicago traction ordinance as reported by Mr. Hall.

Q. This is an argument against them based on Mr. Hall's statement.

A. And I assume it to be a correct statement for he is auditor.

Q. This is simply an argument against them based on this statement of Mr. Hall as to the Chicago traction ordinance.

A. That sentence is.

Q. As a matter of fact what they ought to have done was to have predicated their testimony on their own experience wasn't it?

A. Yes, but I was not obliged to accept their experience.

Q. Well do you understand you are accepting or rejecting any of the testimony?

A. I was using my judgment with regard to this matter here.

Q. Didn't occur to you perhaps the court was going to pass on the testimony, either accept or reject it?

A. Yes, I suppose that was implied in my statement. It was my version of it. I didn't intend to imply anything else.

Q. Then you bring in the Wisconsin Commission here. That is simply another argument against these people?

A. It is a fact which does act as an argument certainly.

3879 Q. In your mind?

A. In my mind certainly.

Q. That is why you put it in here isn't it.

A. I put it in because I considered it had a bearing directly upon what was being allowed.

Q. And that it was an argument against this allowance that Mr. Baehr and Mr. Lea made?

A. Why certainly.

Q. After that you follow up with some more general argument don't you?

A. Yes.

Q. So that on this matter of overhead charges there is not a single statement of your own aside from deductions or arguments with reference to testimony of other witnesses, is that true?

A. Well you can hardly say perhaps that all of my statements were in the evidence previously, I don't remember the statement about the Wisconsin commission for example was in the evidence before.

Q. I say there is nothing in what you take up here, on overhead

charges as you yourself understand it aside from the argument of the testimony of the other witnesses on that question, isn't that true?

A. You may call it an argument on page 30 as to the logical result of including overhead. It is my reason for not including it if you call reason for not including it an argument of course it is an argument in that sense.

Q. So it is fair for me to infer from your position as you stated here that you have excluded these items so far as you could.

A. Yes, except as far as they are given in the investment cost in the books.

3880 Q. You say down here if they, referring to overhead charges, have been included in operating expenses as witnesses of the company have testified, then the operating expenses for the last five years must be rewritten on the books of the company so as to charge out if the overhead charges applicable to construction. Now in the first place what witness do you refer to?

A. May I ask what page you are reading from?

Q. This is page 29.

A. I stated that in the report this way——

Q. I want to know what witness you refer to.

A. My recollection is that Mr. Hagenah and possibly one or two others, but I more distinctly remember about Mr. Hagenah stating that overhead charges were not included in the construction cost, I so understood him to say at least.

Q. That is not what you say here. You understood Mr. Hagenah to say this didn't you that the costs charged on the books were merely cost of labor and material, that is what he said wasn't it?

A. And didn't include overhead, yes.

Q. That is what he said. Now then you say here if they had been included in operating expenses as witnesses for the company have testified. Now what witnesses for the company testified that they were included in operating expenses?

A. It may be the only logical deduction from the statement you just quoted and of course it has got to be put somewhere and if not in construction it must be in operating expenses.

Q. I know, but there was no witness for the company that testified to the statement you make here was there?

A. I can't recall at the present whether in connection with
3881 the point you have just quoted the other statement which is the same thing turned around was made or not. But it is a logical consequence.

Q. But you put it in here, you mean not that the witness testified to it, but what you think is the logical deduction from their testimony. There is some difference between saying a man has sworn to a thing and saying something is a logical deduction from what he has sworn to, a very decided difference.

A. Yes.

Q. Then you say this the operating expenses for the last five years must be rewritten. Mr. Hall did require those operating expenses didn't he?

A. Yes.

Q. And he didn't find any overhead in there did he? Not a single item that he took out as capital expense was there?

A. He didn't take out any overhead, no.

Q. He testified that he worked over these carefully, that he examined every voucher that he analyzed them and that he made such corrections as were necessary to make it right, that is correct isn't it?

A. He had no means in the books of taking them out.

Q. (Question read.)

A. He so testified.

Q. You -new that when you stated here it would be necessary to regrid these operating expenses?

A. Certainly. My statement remains true.

Q. How would you expect anybody to regrid them more fully than Mr. Hall says he did.

A. He could not have a basis for knowing any portion of the salaries charged to operating expense if a man was working
3882 on construction. That would not appear on the books they were salaried officers and they did both kinds of work for the same salary presumably and he could not find that on the books, but it is evident if it cost this large amount of overhead to construct and you have the total to carry on the work and it is not in one, it must be in the other, or else the overhead is exaggerated.

Q. That is what you mean when you say the witnesses testified to it, that is that is the conclusion you deduce from their testimony.

A. Certainly.

Q. Now in this same connection I think you told us that the price of paving here was higher than it was when these mains were laid or when the paving was laid didn't you?

A. I don't remember now any statement of that kind, I don't remember making that statement.

Q. You don't remember any argument that you based on that proposition of the increased cost of paving?

A. Yes. I see now, I thought you referred to the fact that it cost more to lay mains now than it did years ago. What I now understand you refer to is the testimony I gave that more and more expensive paving is being laid, taking the place of cheaper paving as the city grows older.

Q. Is that based on any examination into the facts here in Des Moines?

A. No it is my observation of all cities.

Q. As a matter of fact if I am not very much mistaken the prices of paving in Des Moines have been going down?

A. Well I meant the quality of paving increased in character, people that at first in the neighborhood as it built up were
3883 content with macadam would later want either brick or asphalt and while the price per yard may be declining of a given kind of paving more improved and expensive pavings are being desired with the growth of the city.

Q. I don't want to take up time with the legal proposition as to whether or not paving should be allowed, but I want to ask you

one question, suppose that the gas company has a main here in Court Avenue, make it a ten inch main, I should guess that was rather big, running from opposite this building to the river, and I laid one there today exactly like it, would you say that my main was worth what it cost to lay it assuming that the work had been done intelligently and economically?

A. Yes.

Q. Would you assume that the other main along side of it exactly like it was worth as much as mine?

A. Not for fixing rates.

Q. Leave out fixing rates. Suppose we were ordinary human beings, not experts nor anything like that and answer my question, would you say my main was worth as much as the other one?

A. The word worth, is very hard to define in this case, if you were to sell to another company it would be, if to sell to the city or for fixing rates I should say no.

Q. Put it in another way, assume that I had a main in Court Avenue as I have indicated and you wanted one exactly like it there would you think it would be fair for me to ask you if you wanted to buy mine a price equal to the cost you, what it would cost you to put another one in just like that?

A. If you mean by men individually I would say it would be fair if by me you mean the city of Des Moines, I should say the opposite. If I sold it and put the paving there then it would 3884 not be. As an individual, your position I would agree with.

Q. The next thing you take up is the rise in the value of the land. Do you in your discussion of that matter anywhere say anything as to the actual value of this land at any time?

A. I used the figure that appears in the books as the value.

Q. Do you express any opinion as an expert or otherwise in this matter that covers page 32 as to the value of the land that is in question?

A. I intend to express, if I have not done so it has been an oversight, that it is whatever the books show it has cost the company.

Q. Will you answer the question whether you say in this report or argument as we have been calling it anything on this page as to the value of that land.

A. I refer in the first paragraph to a statement which at the time I wrote it I understood to be an exhibit put in by Mr. Hagenah which I had before me. Afterwards I read the last words on the exhibit and it seemed to indicate there had been some land bought afterwards which was not in that exhibit but which would appear on the books according to Mr. Hall.

Q. I know, but that is not what I asked you about.

A. Otherwise I made no reference to the subject that I know of.

Q. So that this is simply an argument on the question of rise in connection with the value of land?

A. Yes.

Q. That is all there is to it isn't it?

A. I don't attempt to introduce any opinion of my own as to the value of this land.

Q. All there is to what you say on that question in this defendant's Exhibit 43 is an argument on that proposition isn't it?
3885 A. It is an opinion or argument as you may choose to call it, it is a statement of my position and my reasons for it.

Q. Suppose that instead of owning this land the company rented it, would the increase in the value of the land affect what it would cost the company to furnish gas?

A. That rental in that case would have to be included in operating expenses.

Q. And that would increase as the value of the land increased wouldn't it?

A. Yes.

Q. You penalize the company then for owning the land?

A. No, I feel whenever it is sold as it is likely to be some day the surplus can be divided.

Q. Then you recognize the fact that there is a surplus there?

A. Yes.

Q. But for the years that this plan is in existence, you say you argue here that there should be no return on that surplus that is right isn't it?

A. Yes, that is right.

Q. And your discussion here does not go to the amount of that surplus, but it simply goes to the question as to whether or not it ought to have a return?

A. Goes further and says that if it shall be decided that it should have a return then as in the recent New York City decision there should be a corresponding revenue set up against the company.

Q. Will you give us a reference to that decision or have you it here?

A. I intended to get it here. There are two decisions this summer both by the same commission. I only give references to the
3886 first of the two, the other came a month or two later I think in a case I believe is called the Kings County gas and electric light company for the thirty fourth ward of Brooklyn or some such name.

Q. You were asked and testified about going down to look over that plant and property and something about the value of this real estate. You were asked this question, what change if any is noticeable down there in the character of that real property now, from what it was evidently twenty five or thirty years ago. In the first place were you there twenty five or thirty years ago?

A. No, it was nineteen.

Q. So that while you answered the question you in fact did not have the knowledge upon which to base an answer. That is a fact isn't it?

A. Well I had not been there twenty five or thirty years ago, but I suppose my judgment was asked for in part y-a-s well as from personal visit.

Q. You were asked this question, I don't mean that, is there anything about this land itself that in any way has changed the value of its use, I don't mean the value of the property itself but has any-

thing about the land itself in the way of a change of its surface or conditions of the surface that has changed the value of its use for manufacturing gas and you answer no. Now what did you mean by that?

A. I meant that its location with reference to its being lower than most of the city and with reference to its being near railroads and water and in a part of the city where the nuisance would be very great from orders would not be very different from what it was some years ago. Its relation to the heart of the distribution system 3887 would not be very different from what it was then. In one sense it is a disadvantage though as compared with a few years ago. The time is coming when that is not going to be large enough for the purposes of increased manufacture, the growth of the city requiring continual increasing of the manufacturing capacity and it is quite possible that another location where a coke oven plant or something of that kind can be used would be thought wise.

Q. You think that will be required in the immediate future?

A. Probably not in the next three or four years.

Q. Of course that would require a very large additional investment.

A. Yes.

Q. Have you examined Exhibit 18.

A. I don't remember it by that num-er.

Q. It is the exhibit that was lost here for awhile that contains the correspondence about the estimate for additional expenditures.

A. Yes.

Q. And there the acquisition of additional land was recommended?

A. Yes, it was also stated there that they might want a coke oven plant in time.

Q. And it was advised there that some land be acquired?

A. That is true, but it was also suggested that all of the land available would not be large enough after awhile.

Q. Now then you say this, so that whatever increase if any there is in the value of the land itself is an increase in the market value of the property for general purposes, real estate for general purposes, is that so. And your answer is yes. That is correct is it?

A. I think I said that.

3888 Q. You think that a man who wanted that for a gas plant could not afford to pay more for it today than he could thirty years ago?

A. He could locate somewhere else readily.

Q. Please answer the question.

A. I don't understand exactly your question, but I don't see that it is possible to make gas any cheaper there than it was years ago.

Q. If a man had wanted that for a gas plant twenty or thirty years ago he could not have afforded to pay a hundred or \$200,000 for it could he?

A. No.

Q. He could afford to pay it today couldn't he?

A. I doubt if he would pay it if he were coming into town.

Q. You could afford to pay it today couldn't you?

A. With prices now charged he could.

Q. It is worth more today for manufacturing gas than it was thirty years ago isn't it on account of the difference in conditions here, greater demand for gas and a thousand other things.

A. Oh the gas company is more profitable now than then, but that particular location I don't know as any more valuable relatively to other locations than it was then.

Q. You know of course that was not the question, I didn't ask you as to relative value, you knew that?

A. Yes.

Q. Now will you answer the question?

A. It is more valuable for purposes of sale, whether more valuable for making gas, I could not say.

Q. Than it was 30 years ago?

A. Yes, but if it is more valuable I must say it amounts to simply increased revenue to the company to be taken account of in another way.

Q. That is the legal proposition I said I preferred not to argue with you, not because I would not like to, but because I think perhaps I had better not take the time. It is your theory is it not and the theory that you have adopted in making this argument that all depreciation of a gas property should be charged against the investment and that the company should be given the benefit of no appreciation.

A. That is not right without you supplement it with the further statement that their earnings—the prices allowed to be charged should be sufficient to carry a sinking fund to keep up the investment.

Q. Of course that goes without saying.

A. With that statement added I would agree with your question, say yes to it.

Q. Now let's take up the next thing which is paving. Is there anything in that except an argument against the allowance of paving?

A. It gives my reasons for not allowing it and if you call that an argument then I would say yes. I give a computation on page 35.

Q. I will come to that presently. In some connection here, you were asked whether the witnesses separated some of those items whether Mr. Baehr did and I think you answer no, that you had to dig them out and so on in the report.

A. I think I said there was more difficulty with Mr. Lea's, but that was not intended to be any criticism of Mr. Lea's report, he was not making it up for my benefit.

Q. He was not making it up on the investment theory was he?

3890 A. No.

Q. And as a matter of fact in each one of these reports if you wanted to take them and analyse them you can find all of this information can you not?

— I think so.

Q. Now you have gone so far in the paving proposition as to disallow the additional cost involved in laying the mains where the streets were paved before the mains were laid have you not.

A. No. That is in the book cost of the mains.

Q. Do you refer to that at all in your discussion of paving?

A. Possibly not, but I took for granted that that was understood. I want to make it emphatic now that the book cost of the mains and the services includes as I understand Mr. Hall's report the cost where they had to cut through paving.

Q. You say this don't you, the city's witnesses assumed that the mains and services in almost every case were laid before paving?

A. Yes, I said that.

Q. They did didn't they?

A. I believe that was the only way of reconciling the great similarity between their figures of reproduction cost new without paving and what the books show to have been the total cost, but I don't know that they said it in their testimony directly.

Q. Then this again is a deduction of yours and not to be taken as a statement of that the witnesses said?

A. I don't recall any statement directly by them to this effect. I remember they stated that they ignored in their valuation the question of whether there was any paving or not at the time they made their estimate, at the time the mains were laid.

Q. Now you state this on page 34, the question at issue is 3891 whether that which cost the company nothing and is not owned by it should be included in the capital account?

A. Yes.

Q. Now that is the question as you understand it which you were discussing.

A. Yes. That is not intended to include any paving that they had cut through in originally laying their mains.

Q. You know don't you that nobody claims any paving, neither the company nor anybody else?

A. It amounts to that but it is not that in so many words.

Q. You know that the company does not claim to own paving don't you?

A. Yes.

Q. And you know that the company does not claim that the cost of paving as paving is to be charged to its capital account don't you?

A. It is the cost of cutting through it to suplicate the mains.

Q. It is the cost of laying the mains.

A. To do that paving, to lay mains, yes. It is the same figure that they would get in the other way.

Q. The question then is this isn't it, to state it fairly, the question is whether the company in ascertaining the value of the mains today is entitled to take into account what it would cost to reproduce them under existing conditions.

A. Yes.

Q. That is the real question?

A. Yes.

Q. It is not a question of the company's claiming to own something that it never paid for is it?

A. That is right.

3892 Q. And your statement of the question here is intended to be a statement of it from your point of view, an argumentative statement?

A. It is intended to show the ridiculousness of that theory.

Q. It is intended to mis-state the theory in order to overthrow it isn't it?

Q. You go and say there is no such recognition of private ownership of pavement over street mains. You knew when you wrote that the company didn't claim any pavement.

A. Certainly they didn't claim to own it.

Q. You knew that when you wrote it?

A. Yes.

Q. You knew then you were setting up an unsound proposition in order to knock it down?

A. It is practically involved in the duplication theory, however.

Q. You knew then you wrote that you were setting up an unsound proposition in order to knock it down didn't you?

A. That statement may not be wholly true.

Q. You knew when you wrote that you were setting up an unsound proposition in order to knock it down?

A. I would not put it quite that way, but I think I set up something that fairly illustrated the fact. It was not exactly the position.

Q. You go on and say the company does not claim to own it?

A. Yes, that indicates I was not misleading.

Q. Oh of course you didn't intend to mislead. Now then the claim of the company amounts to this, you say if its mains are laid in a city like Des Moines before paving and the city in a year or two should lay 300,000 of pavings over its mains, the company
3893 would at once assert its right to increase the price of gas by six per cent or more on this account or say \$18,000 a year.

Did the company make any such claim?

A. It would have to do so logically.

Q. I didn't ask you that.

Q. Your theory would force you to do it.

Q. You state here the claim of the company. Do you know of any such claim made by this company?

A. I might say that is what the company logically would have to claim to be logical.

Q. You did say the company's claim amounted to a certain thing.

A. Yes, it would under the theory of rate regulation.

Q. As a matter of fact has the company done such a thing?

A. It has done practically that when it says it cannot reduce as much as otherwise because of this paving.

Q. Has the company done what you say here?

A. Not in so many words, but it means the same thing. It can't reduce by at least \$18,000 a year because of the paving.

Q. To be accurate you would have had to say that the company

claims that the enhanced value of its mains on account of paving over them has to be taken into account in rate making.

A. Yes.

Q. And that would be an accurate statement of the company's position wouldn't it?

A. It would have to take identically this position, it would have to take the position of six or eight per cent on the value of that.

(Question read.)

A. It would have to be done on the question of any rate making.

3894 Q. Was not my statement a correct statement of the company's position?

A. It did not go to the full length of the company's position. The company's position is, it must have the same rate of return on that paving that it has on its mains.

Q. Not on the paving?

A. On the cost of cutting through.

Q. No, the company's position is this, to be accurate about it, that in ascertaining the cost or the value of its mains for the purposes of this suit or anything else for that matter, you shall take into account what it would cost to reproduce them under these existing conditions which includes the existence of pavement.

A. That means the same thing as I put it.

Q. Is there anything in this paving subject that is not argument?

A. On page 25 I show a few figures on revenue that the company will get in the future if ruled they are entitled to all unearned increment claimed on paving.

Q. That is merely argument to show this is an unreasonable claim?

A. To show how to work it out.

Q. Nothing there except argument.

A. My reasons for my position, call them argument if you wish.

Q. I want to take up the question that we all like for a little while, that is going value. In the first place at the top of page 37 I notice you omit Prof. Marks' statement of the going value.

A. His going value was not the going value in the sense that the company used it, it was capitalization of monopoly earnings as I understood it.

3895 Q. And it is omitted by you here?

A. Yes, I have no hesitation in approaching the subject of his method but it was absolutely so different from anything the company had used that I did not see the necessity of mentioning it here.

Q. Do you deny that a plant with an established business is worth more than the same physical property without the established business?

A. It is worth more for sale to another company, worth no more for sale to the city or for rate making. There is an absolute difference between the two theories that should govern those cases in my opinion.

Q. Let's stick to the question please, I want to avoid discussing your theory on the legal end of it if I can. A plant or any property

that has attached to it as an attribute an established business will sell for more in the market than the mere physical property without an established business?

A. Just the same as if it had a franchise the franchise will sell.

Q. Will you please answer the question without argument.

A. Yes, like a franchise.

Q. You can't refrain from argument.

A. It has to be stated in that way to show the difference between that and the other kinds of property.

Q. Does it have to be stated in the way you answer the question?

A. I would not state my position if I did not have that qualification.

Q. You forget I am trying to draw out your position, I am trying to limit myself and avoid a discussion of your position. Now

let's get back again and see if you can answer the question.

3896 Q. Do you believe that a plant without any business will sell for as much in the market as the same physical property with a fully developed business?

A. No.

Q. Now the difference between the value of the one plant and the other is what we call going value isn't it?

A. You call it that.

Q. Well it is what I call going value?

A. I call it monopoly profits or monopoly value.

Q. Well all right, I don't care what word you use. I am using the expression in the same sense in which the supreme court of the United States uses it in the actual cases am I not.

A. Yes, I think so.

Q. So I have a fairly good precedent?

A. They ignore it in a rate case.

Q. Now then you said there were several theories of going value, three of them on your direct examination?

A. Yes, and if you call Prof. Marks or his theory there should be added would be four.

Q. These are not theories of going value as a matter of fact are they.

A. If you classify the situation correctly, they are combination of what is mostly theories, they differ as to the amount of going value and how to reach it. They are different ways of consideration of what is going value and how to reach it.

Q. The three methods you stated are three methods for measuring going value aren't they?

A. They are different conceptions, Mr. Hagenah's basis or the Wisconsin theory is absolutely an opposite conception of what going value is from that of Mr. Randolph and Mr. Lea and Mr. Baehr.

3897 Q. The difficulty with going value has been in defining what it was not to admit that a going concern is worth more than one that is not, but has been in the measurement of it hasn't it?

A. Not altogether, has been great dispute as to whether a company was entitled to it at all.

Q. That is your legal proposition that I have not referred to at all. I do not say it ought to be included or ought not to be included in a rate case, I don't refer to that. Now drop that for a minute. The difficulty has been not in finding out what it is, but in measuring hasn't it?

A. By limiting it to what you assume that it is legitimate then of course that is the only other difficulty.

Q. But I have not assumed that at all.

A. When you asked me if that is not the only difficulty there is namely as to whether it should be given going value I can't answer it except the way I did, there are two difficulties.

Q. Can't you disabuse yourself of the position of advocate here for just a few moments and let me explain this to you so you won't think you are giving up anything on your legal proposition which I don't want to argue with you, I would prefer to argue to the court. If a man were passing on this question take overhead or going value or paying he would ascertain what the amount was and then as independent proposition he would determine whether he would allow it or not. I have not anything to do with the second question whether it ought to be allowed or not in asking you about it, but I want to take up this other phase of it which does not involve any admission on your part of the legal proposition and which would not bind you because if you testified that the law was just the reverse it would not bind the city nor the court nor anybody else. Now then to get back the existence of going value, that is the existence of the difference between the value of what the supreme court calls the mere bare bones of the plant, and that same plant with a fully developed business is conceded isn't it by every practical man?

A. That there is such a difference?

Q. Yes.

A. Yes.

Q. And the trouble has been to accurately measure it so far as determining the amount of going value.

A. So far as relates to the question the question is how to determine it, I will agree on that of course.

Q. And the two theories that were adopted by Mr. Baehr and Mr. Lea on one part and Mr. Randolph on the other were for the purpose of measuring that going value or trying to were they not?

A. Yes, sir.

Q. That is what they related to?

A. Yes, I should say they approached the subject with opposite interpretations of what is going value.

Q. You should?

A. I believe so.

Q. Now then do you think it is a fair proposition to start out with in measuring this going value to assume that a thing is worth what it will cost, for instance if I want to build a house will it be fair for me to assume or in determining whether I will build it or not, that is assuming I wanted a house, it would be worth what it cost?

A. In competitive business that is the usual rule of the market.

3899 Q. Well suppose I wanted an oil painting that was not competition. Suppose we were discussing it and we didn't have any law suit and didn't have to argue either side of it, just talking to see fairly what would be a fair price to get at what it was worth it would be fair to consider what it would cost?

A. In cases that cannot be duplicated the cost item does not enter into it, there it is a question of course of what people will pay for it. It is the demand there and not the cost of supply.

Q. I did not assume something that cannot be duplicated in the question relating to cost. Suppose I wanted a portrait of yourself for instance and I wanted to get at what it was worth that would be the cost wouldn't it?

A. Yes.

Q. Now that is what Mr. Lea and Me. Baehr have done or have attempted to do in estimating this going value isn't it?

A. Yes.

Q. They have attempted to set down and work out what it would cost to reproduce that condition?

A. Yes.

Q. Now the correctness of their conclusions must depend upon the soundness of their judgment in the gas business based on their experience and on their integrity and freedom and lack of freedom from prejudice?

A. Yes.

Q. If *there* judgment is sound and they can disabuse themselves of prejudice they ought to get a substantially accurate result in their computations ought they not?

A. Where so largely a question of judgment and so little of precedent I would not be surprised to find large disagreements between estimates.

3900 Q. Well of course we find disagreements between estimates based on judgment just as we do values of real estate.

A. There would be likely to be far greater distance in estimating going value than estimating real estate or building or mains.

Q. That is your notion about it.

A. But it has been the result in most of the cases of appraisal where going value has been presented on such method as they use which has been mostly in water works.

Q. Mr. Randolph gets at this in another way and he gets from his experience aided by the examination of the special conditions here a conclusion which he thinks is what it would cost to reproduce that condition.

A. Yes.

Q. That is the difference in those methods or theory?

A. Yes.

Q. Mr. Hagenah if his is a measure of going value bases it on capitalization of losses?

A. Yes.

Q. So that in each case we have these people simply endeavoring

to measure with accuracy these differences between the going plant and the mere bare bones of the plant.

A. Yes, but with the Hagenah Wisconsin theory if the plant had been very profitable there would not have been any going value.

Q. Certainly I think that is the inevitable result of that theory, I would not disagree with you at all about that. Now then you say the more profitable the business is, that is the greater profit the larger going value? That is the view of Mr. Lea and Mr. Baehr?

A. That is a common view.

3901 Q. That is a practical view isn't it?

A. Yes.

Q. Now then do you know of any other or better method that has been adopted in actual practice for the measurement of going value than the methods that have been used here?

A. Those are the only theories I am aware of that have been made to measure it. In most cases there has been no attempt, no serious attempt at least, to claim it, and there has been no verdict in favor of it?

Q. I will pass without any comment or without any cross examination your reference to the legal end of it and get back to the question. Do you know of any better or more accurate method to measure going value than methods adopted by these gentlemen?

A. Well if I were to accept their theory I should use another method.

Q. I didn't ask you that. Do you know of any better or more accurate method for the measure of going value than the methods adopted by these gentlemen?

A. I should say yes, but I don't know of its being used anywhere if that is what you mean to ask if I knew of its being used?

Q. Is it a method that you have evolved?

A. I am not agreeing with the theory, I have not evolved it, but I have clearly in mind how I should do it if I attempted it.

Q. Is it a method that has ever been tried by yourself or anyone else?

A. No.

Q. Now then to get back do you know of any more correct method that has ever been used by anybody for the measurement of going value than the methods that have been adopted by these witnesses?

A. I know of no method that has attempted to work it out in that detail except this method. Of course it has been used in
3902 a few But that is the same method as Mr. Lea and Mr. Baehr have used.

Q. What I am getting at is this whether you know of any more accurate or better method for measuring going value than has actually been used and been subjected to the test of cross examination and controversy?

A. I do not. In fact I know of no other method that has been tried at all. This was never tried until very recently.

Q. What do you mean by very recently?

A. Never been tried outside of water cases until this hearing so far as I am aware. Never been tried at any water case until within

the last three or four years, the Dubuque water case following a little the Kansas City and a few other cases, the Des Moines water case I think has tried it. I am not aware even in any of these cases where the full theory has been accepted by the court.

Q. Can you forget the legal end of it for a minute, because I don't want to argue the legal end of it.

A. When I say recently I mean to say in any case outside of water in no case have I ever known of its being tried.

Q. This same method has been applied in water cases for the last ten years at least?

A. Not fully, but they have been working towards it. I don't remember when it was first applied in a wa-er case in just this way.

Q. It is at least ten years ago isn't it?

A. I can't say.

Q. This method has grown up out of the fact that there has been a desire to get some way of measuring this amount that people generally will recognize as a measure and they have found difficulty in measuring?

A. I can't say what their object was.

3903 Q. On this question of going value in your discussion beginning at page 37 and running to page 41, is there anything more than argument?

A. Oh there is a little information possibly.

Q. Well where is it, point it out.

A. Well I state on page 37 what the witnesses have given.

Q. That was simply the preliminary statement as a basis for your argument wasn't it?

A. Yes, I perhaps discussed the reason for reaching the seven years in the theories that are advanced.

Q. I want to call your attention to that, that is page 38 you say the magical character of the sacred number 7 of the old Hebrew Egyptian and Chaldean religions appear to influence Mr. Lea and Mr. Baehr. You expected to swear to this didn't you?

A. Yes, sir.

Q. You didn't think it was true did you?

A. I thought perhaps the joke was excusable.

Q. It was intended as a joke then?

A. Yes, a little humor.

Q. To get back what is there in these pages that is not argument pure and simple?

A. Of course I refer to Judge Taylor's position which is a statement of fact, I describe the position taken by some of the others.

Q. And all for the purpose of enforcing your talk upon this method of computing going value or did you intend to attack this method of computation or simply to argue the legal proposition that might follow that it should not be allowed, or both?

A. I held that should it be allowed at all then on page 41 I state the method that I think is altogether the best for considering it.

That is, not, however, the method I had in mind a little while ago as something I should apply if I were applying Mr. Lea's and Mr. Baehr's thought, but I consider that in a broad

3904

way the Massachusetts commission has treated the subject better than other bodies.

Q. You are a little extravagant aren't you when you talk here about what the commission dreams of permitting or does not dream of permitting.

A. I have forgotten now where I used that word.

Q. The 5th line from the top of page 41.

A. Perhaps it is enough to say that it does not permit.

Q. That is your conclusion from the rulings of the commission I suppose?

A. Yes.

Q. What do you take up next profits?

A. Yes.

Q. Now you refer on page 42 to the rate litigation expense of \$9,305 in 1895?

A. Yes.

Q. You threw them out of the operating?

A. No, I think not.

Q. You included them?

A. They were already in the operating were they. I threw out neither of those I state at the last of the paragraph rate litigation expense of \$9,305 in 1895 and \$3,689 of accident expense paid in January 1906 will be included. What I did take was the six cents for depreciation and substituting instead a sinking fund method. I don't think anything has been thrown out of operating expenses in these tables that follow except the present rate litigation expense the last year and two months.

Q. Turn to this table on page 43, I think it is, where did you get \$64,702 or how did you get it? In the first place you 3905 didn't examine the books?

A. I got that from Mr. Hall I think from one of his exhibits.

Q. His exhibits don't show the operating back to 1895 do they?

A. Well I thought they did.

Q. On page 29 you will find—well that is not the operating expense including depreciation, it is not exactly the same figure.

A. I, however, took that and calculated from it by taking the six cents and putting it back into operating expenses.

Q. You took the six cents on what?

A. On the sales.

Q. Now you didn't check with the actual operating for these various years anywhere did you?

A. I asked Mr. Sangster in preparing that just before he left to go over the record and give me that column.

Q. He prepared it did he?

A. Mr. Sangster prepared that column.

Q. The actual operating for 1895 I think are given in Mr. Ha-genah's computation are they not as shown by the books?

A. No, I think his actual operating include some interest matters.

Q. Doesn't his exhibit 23 show the actual operating as shown by the books?

A. Somewhere here I have an attempted reconciliation between his figures and these, whether I can find it or not I don't know for the moment, but they relate almost entirely to interest payments. Otherwise it is practically the same. In 1895 Mr. Hagenah, according to this statement Mr. Sangster prepared for me had operating expenses of \$63,976. Then there were worthless bills \$753, bills which were charged to that, making \$64,729.

Q. You have \$64,702?

3906 A. Then there was interest of \$27 to come out making \$64,702.

Q. So that these are adjusted operating expenses and are operating expenses not adjusted by yourself?

A. No.

Q. That no is perhaps ambiguous there. They are adjusted operating expenses are they not?

A. Yes.

Q. And the adjustment was not made by you?

A. No, but the whole detail is before me.

Q. *The* detail which is not in evidence you are assuming is correct and that cross examination would not disclose anything out of the way about it.

— I had to rely on Mr. Sangster for this.

Q. Run right straight down the line and these operating expenses do not agree with the books do they?

A. No on account of these small changes they are not large.

Q. Take the year 1904, there is about \$7,000 there isn't there?

A. Yes. \$6,704 of interest which is not operating expenses at all.

Q. You have no hesitancy whatever in swearing to that without knowing anything about any of the items yourself?

A. I asked Mr. Sangster what it was.

Q. What did Mr. Sangster tell you it was interest on?

A. He told me but I have forgotten except it was a payment of interest, we both agreed that interest is not operating expense.

Q. Interest is not operating expenses?

A. I don't consider it so.

Q. Mr. Sangster agreed with you on that?

A. Yes.

Q. That it was not an operating expense?

3907 A. Yes, I can positively — that we went so far as to adopt a proper generalization and in this particular item he agreed that it was not a proper expense.

Q. You don't recall what the item was so we can form any conclusion of our own about it?

A. No.

Q. And Mr. Sangster is not here?

A. No, unfortunately.

Q. And there is a difference of three or four thousand dollars in 1897?

A. In 1897 Mr. Hagenah gave \$77,881 and these worthless bills—

Q. Can you just answer whether there was a difference of three or four thousand dollars that year?

A. Oh yes a difference of \$4,290.

Q. And there is a difference of say \$5,670, 80 or 90 dollars in 1899.

A. Yes.

Q. And of \$3,500 in 1910, in round numbers?

A. Yes.

Q. And only about \$1,500 in 1901?

A. Yes, 1400 odd.

Q. And something less than \$2,000 the next year?

A. There Mr. Hall was higher than Mr. Hagenah.

Q. But there is a difference of something less than \$2,000?

A. Yes.

Q. And was \$3,800 the next year, around that?

A. Yes.

Q. In 1904 a difference a little less than \$7,000?

A. Yes.

Q. In 1905 something like \$2,600?

3908 A. Yes, sir.

Q. And for that two months' period something like \$3,800?

A. Yes, I added there the accident damages, the damages paid.

Q. Did you testify yesterday that this was made up from the books?

A. I considered so.

Q. I asked you whether you testified yesterday this was made up from the books?

A. I don't remember.

Q. Now as a matter of fact there is not an item in your operating expenses there that agrees with the books is there?

A. These items are all taken from the books as I understand it.

Q. (Question read.)

A. Agrees with the books with certain changes taken from the books.

Q. To put it another way the total operating you give here you give as to each year. Now as to no year does that agree with the total operating as shown by the books, that is right is it?

A. Yes, I should think so, I can't say. I don't happen to have before me in this column the last five years of Mr. Hagenah's statements and I don't know there may have been an agreement there, I don't know whether there was or not, but prior to 1906 the statement you make is true.

Q. You know that?

A. Yes, sir.

Q. When you come to the last five year period it does not agree either with the books or with Mr. Hall's adjustment of the operating account does it?

A. I don't know.

3909 Q. And under those circumstances have you entire confidence in the resulting net income as you have figured it?

A. Yes, sir.

Q. Now turning over to page 45, that table is simply a copy from Mr. Pratt, as I understand it as to totals?

A. That is right.

Q. On page 47 you have first your investment with working capital what working capital did you take, actual working capital or theoretical capital?

A. Theoretical, start with what Mr. Pratt said.

Q. When you got down to the last five years you didn't take the actual working capital as shown by the evidence?

A. No.

Q. But took the theoretical working capital that was much less?

A. Yes, except the last year where I think it is larger than the evidence of Mr. Hall showed.

Q. The result of course taking this working capital this way is to decrease your ultimate amount there, \$1,566,865?

A. That is not decreased, might be some of the years immediately preceding are, but if I am seeking to harmonize with Mr. Hall's testimony, that \$1,566,000 would be too high by the difference between 68,000 and 80,000. He used 68,000.

Q. This \$1,566,865 is taken from page 27?

A. Yes, the last column.

Q. And if we go back there we can find out how it is made up.

A. Yes.

Q. And you have taken out your depreciation?

A. Yes.

Q. That depreciation which you take out is on this theoretical basis that we discussed this morning?

3910 A. Yes. Shown on page 24.

Q. The balance of this division of your report is merely summarizing the argument based on these figures isn't it?

A. Yes, sir.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

3911 Saturday Forenoon Session.

SEPTEMBER 23, 1911—at 9:30 A. M.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JOHN MACVICAR, being first duly sworn on part of defendants, examined in chief by R. O. BRENNAN, Esq., testified:

Q. You have given the reporter your name?

A. I have.

Q. You reside in Des Moines?

A. I do.

Q. And for how many years?

A. Twenty-nine years.

Q. You were formerly mayor of the city of Des Moines?

A. I was.

Q. During what years?

A. 1896 to 1900.

Q. And since April, 1908, what official position have you held in the city of Des Moines?

A. Member of the City Council.

Q. And as a member of the City Council under the Des Moines plan of government of what department have you been superintendent?

A. Department of Streets and Public Improvements.

Q. And as councilman and superintendent of the department of streets and public improvements have you been assigned to certain duties by the council to be performed by you as such superintendent?

A. I have.

Q. And among other duties assigned to you under the ordinance of city, does it comprehend an investigation and
3912 control of the public utilities and franchises?

A. The public utilities are in my department.

Q. I wish you would tell the Master, Mr. MacVicar, say for at least fifteen or twenty years, what interest you have taken in municipal affairs, and especially regarding regulation and control of public utilities.

Objected to on part of complainant as being immaterial.

Q. And how much you have kept in touch with matters of that kind?

Complainant interposes the same objection.

A. I have in a general way for twenty years kept rather in close touch on matters pertaining to public services, corporations and municipal affairs, generally.

Q. Have you been an officer in any municipal league in the United States?

Complainant interposes the same objection last made.

A. I have been connected with the League of American Municipalities for fifteen years, first as president, and then as secretary. The past ten years I have been secretary.

— And what are some of the general purposes of that League?

Complainant interposes the same objection last made.

A. The dissemination of information relative to matters pertaining to municipal government. As secretary I maintain a bureau of information and the members call upon the bureau from time to time for information relative to matters pertaining to the government of municipalities.

Q. Do you endeavor to keep in touch with the ordinances of the several cities of the United States and Canada, with respect to the rates and charges for water and gas and other public service of that character?

Complainant interposes the same objection last made.

3913 A. To a certain extent.

Q. How long have you continued to make observations along these lines and gathered information in regard to public utilities?

Complainant interposes the same objection last made.

A. For twenty years, nineteen or twenty.

Q. Were you familiar, Mr. MacVicar with the litigation in the city of Des Moines in the year, say from 1892 to about 1894?

Complainant interposes the same objection last made.

A. Somewhat familiar.

Q. Coming down now to the passing of the ordinance in controversy, I believe you were instructed by the city council to make some investigation for it with respect to a proposed ordinance to become effective after January 1, 1911?

A. Yes.

Q. About when were you assigned that duty by the council?

A. In October of last year.

Q. And upon being authorized and directed by the city council to make the investigation, you may tell the Master what you did in that respect?

A. I looked into the rates for gas being paid by other cities and took into consideration the comparative facilities for furnishing gas and considered from time to time the showing made by the local company as to its investment and its earnings and its income, and in a general way sought information relative to what would be considered a reasonable rate in Des Moines for gas.

Q. Now did you have in mind the former record in the proceedings to which I have called your attention, the litigation in the years 1893 and 1894?

3914 A. Yes, we had in mind the results determined there and the showing, vaguely, the showing made by the company as to its investment, etc.

Q. The amount which it claimed as representing its investment at that time?

A. Yes.

Q. And about the number of miles of mains it had in its service at that time?

A. Yes.

Q. And the additions that were made to the plant as far as it came to your knowledge?

A. I had a general information on that subject and it was taken into consideration.

Q. And was that supplemented in any way by advice which you

received from the Des Moines Gas Company through Mr. Haines with reference to the value of the property?

A. I had some information from Mr. Haines with reference to the value of the investment.

Q. And the only changes that were suggested by you in the ordinance was the reduction in the price of gas?

A. That was all.

Q. You made no recommendations or suggestions with respect to the candle power or thermal values of the gas, or matters of that kind?

A. No.

Q. Now, I wish you would tell the Master, Mr. MacVicar, if prior to the time that you presented the ordinance in controversy to the city council as representing your report under the resolution directing you to make an investigation, if you conferred with the mayor and other members of the council from time to time, formally or informally, with respect thereto?

A. I conferred from time to time with members of the 3915 council and reported progress.

Q. And there have been introduced in this case certain letters and correspondence between yourself and Mr. Jansen Haines relative to the investigations you were making; now were there any conferences held between you and Mr. Haines with respect to the valuation of the property of the Des Moines Gas Company and the rates which should be charged from and after January 1, 1911?

Objected to on part of complainant as being incompetent and immaterial.

A. There was.

Q. Tell the Master about how many of such conferences were had and about the scope of the negotiations or suggestions that were made at these conferences?

Complainant interposes the same objection last made.

A. We had three or four, I believe, conferences, and in a general way discussed the fact that our contract for rates was coming to an end and the desirability of agreeing upon new rates. One conference, may be two, was held in connection with the city solicitor, Mr. Brennan. The matter was discussed pro and con and the 90 cent rate was discussed; I had reason to believe we were going to agree upon the 90 cent rate. The question of the tests to be required for the quality of gas was discussed also, and Mr. Haines asked what tests would be required for 90 cent gas and we asked him to frame a section which he thought would be reasonable covering the tests, and the conference adjourned with the understanding that he would frame such a section; but following that shortly his final letter declining the 90 cent rate was received.

Complainant moves to strike out the statement "I had reason to believe that the 90 cent rate would be agreed upon" as incompetent and being a mere expression of the opinion of the 3916 witness, and in any event incompetent as not tending to prove or disprove any issue in the case, and immaterial.

Q. What do you recall Mr. MacVicar, that Mr. Haines said on the subject of the 90 cent rate when it was suggested by you?

Objected to on the part of complainant as immaterial and incompetent.

A. He said nothing directly favorable or unfavorable about it. We argued the question more or less and finally it apparently resolved itself into a question as to what tests would be required under the 90 cent rate.

Complainant moves to strike out the latter part of the answer where the witness states that it apparently resolved itself, etc., as being incompetent and a mere expression of opinion of the witness and not a statement of any fact and wholly immaterial.

Q. What tests were under discussion and what condition or circumstances suggested to your mind these tests which you were suggesting?

Objected to on part of complainant as immaterial.

A. It was suggested that the proper test would be based on the British thermal units, rather than upon the candle power. As I recall it, Mr. Haines thought that the tests should approach 600 or rather under 600 British thermal units.

Q. You spoke something of tests to be made as to pressure at which gas was to be furnished; what was said along those lines?

A. We discussed the matter of pressure quite thoroughly and that was to have been incorporated into the ordinance to be agreed upon, the requirements as to pressure.

3917 Q. Was there anything said by you or by Mr. Haines with regard to the installation of a laboratory to carry on these tests from time to time?

A. It was suggested that a laboratory should be installed at the expense of the company. That was objected to by Mr. Haines. When I told him I understood that the United Gas Improvement Company had been accustomed to furnishing certain cities with a laboratory without cost and we thought Des Moines should have it under the same terms, that was discussed and not very strenuously opposed by Mr. Haines, but not however agreed upon.

Q. As I understand it, the principal questions discussed was the tests and the heat units of the gas, and as I understand you, the 90 cent rate was not seriously objected to by Mr. Haines?

Objected to on part of complainant as immaterial, incompetent and calling for the conclusion of the witness.

A. Apparently not.

Q. Now, then, I will renew the question as to the information which you had and which you received during this investigation with respect to prices and charges which other companies were making and receiving for like services?

Objected to on part — complainant as immaterial and incompetent.

A. I had compiled from authorities on gas rates the rates paid by certain cities, some of them approximating Des Moines in size and other conditions and submitted to Mr. Haines certain of these cities as a reason why Des Moines should be entitled to a 90 cent rate.

Complainant moves to strike out the statement as to the information received as being secondary and not the best evidence.

(Answer continued.) And also from my personal knowledge that I had gained from direct contact with the cities or with their ordinances as to the rate they were paying.

Q. What city or cities in Iowa did you know of that was being furnished gas, that is, to the city and inhabitants for less than one dollar?

Objected to on part of complainant as immaterial and incompetent.

A. I knew Cedar Rapids had established a rate—the Supreme Court of the State, a rate of 90 cents, and that the conditions there for low price gas were not as good as in Des Moines.

Q. Did you have any knowledge at that time with respect to the situation in the city of Minneapolis?

Complainant interposes the same objection last made.

A. I knew they had a gas controversy there and that they had secured a rate much lower than 90 cents in an adjustment of rates.

Q. Had you studied the conditions in the cities of Massachusetts to any extent?

A. I had in a general way studied into the conditions in Massachusetts and found that Boston had recently voluntarily reduced its rate from 90 to 80 cents, for the reason that it desired to increase its dividend earnings, being operated under a restrictive dividend earning, which permitted it to earn increased dividends as the price of gas was reduced. I knew in Lynn, Massachusetts, a city only slightly smaller than Des Moines, a slightly larger production, and a much smaller production per mile of mains laid was selling gas then at 80 cents and the first of January it was reduced to 75, a voluntary reduction, I believe. New Bedford, Mass., a town about the size of Des Moines, and very much smaller consumption was selling gas for 90 cents.

3919 Q. I want to ask you, Mr. MacVicar, if in your investigations of the result or results of the reduction in the price of gas, whether you have observed that the business has increased by reason of and on account of the reduction in price?

Objected to on part of complainant as immaterial and incompetent, the witness not having been shown to be competent to testify or give an opinion on the subject inquired about; not appearing to have any more information on the subject than is common to anyone else.

Q. In other words, have you made a study of the effect of the reduction in the price of gas as affecting the amount of sales?

Complainant interposes the same objection last made.

A. I have simply informed myself that there is an economic proposition in the reduction of cost. I had observed directly the results in Des Moines in the decrease in the cost of gas here, and in 1906 or 1907, I believe, it may have been in 1905, when the rates were reduced from \$1.55 or \$1.60 to \$1.30 that the annual increase was abnormally large; and in talks with the officials of the Company and the reports of the council learned that the increase was abnormally large and also that the officials with their profits were quite satisfied under the reduced rates as compared with what they were when they were charging a higher rate.

Complainant moves to strike out the statement as to talks with the officials of the Company as being incompetent and immaterial.

Q. You said 1904 and 1905—did you mean that, or did you mean 1894 and 1895?

A. I meant 1894 and 1895.

Q. Were you familiar with the amount of the output or sales of gas of the Company in about 1894 or 1895?

3920 A. From the reports of the Company to the City and its statements at that time, I learned that the output at the time the reduction was first made was in the neighborhood of fifty million feet annually.

Q. Do you recall in a general way what the output was in or about the month of December, 1910, for the year ending?

A. At that time the output was in excess of 450 million feet; about 500 million feet, I believe.

Q. So that there was an increase during these fifteen years of approximately one thousand per cent of the output of gas?

A. Yes.

Q. Do you know, Mr. MacVicar, what the increase in population was during those fifteen years, approximately?

A. Between forty and fifty per cent, I believe.

Q. You say you have had conversations with officers of the Des Moines Gas Company and they have stated to you they were making more money under the reduced rate than formerly?

Objected to on part of complainant as leading, incompetent and immaterial.

Q. State what was said in substance.

Same objection.

A. Two or three years after the reduction of the rate I had a talk with an official of the company and was told that their output had increased to such an extent that their profits had also increased in a very satisfactory way.

Q. Now, Mr. MacVicar, in arriving at 90 cents as a reasonable price for gas in the city of Des Moines as represented in your report

through this ordinance, upon what valuation did you estimate that 90 cents would earn a reasonable return?

3921 A. Estimated on the best information that I had on that subject, which was the showing of investment from time to time in the suits in court, and the showing made by Mr. Haines in his letter to me advising me as to the investment.

Q. And the letter now to which you refer, under what date is that letter?

A. It is under date November 22, 1910.

Q. And what was the valuation upon which you estimated as shown in the letter under date of November 22, 1910?

A. The amount stated there was \$1,739,094.

Q. Now the letter to which you have called attention is the same letter which has been introduced in evidence in this case as Complainant's Exhibit 7?

A. I think this was introduced, and another letter of date November 26, 1910, referring again to the same figures.

Q. Now in addition to the letter, Exhibit 7, I will ask you Mr. MacVicar, if you had been informed by Mr. Schramm, a member of the council, and former City Assessor, as to the valuation placed upon the property by the Des Moines Gas Company in or about the year 1908?

A. I was advised by him that such valuation had been placed upon the plant by the authorities of the Company, amounting to less I believe, than one million and a half, or a million three hundred and fifty thousand, or thereabouts.

Complainant moves to strike the answer as incompetent and hearsay.

Q. Do you remember, Mr. MacVicar, whether you were shown the original report or a copy of the same made by the Company to the assessor for the year 1908 or any of the previous years?

A. Not at that time, I believe.

3922 Q. Did you secure this information from Mr. Schramm?

A. I did.

Q. Do you remember when he was city assessor?

A. Previous to April 1, 1908, for—

Q. Mr. Schramm has been a member of the city council for how many years?

A. Three years and a half.

Q. And was a member of the city council at the time of the passage of the ordinance in controversy?

A. He was.

Q. In arriving at 90 cents as representing a reasonable rate for gas manufactured and distributed in the city of Des Moines, what did you intend the Company should receive therefrom, that is to say, what expenses did you estimate could be paid from that?

A. I thought that rate would afford a reasonable return upon the investment and payment for the operating expenses and depreciation.

Q. And taxes?

A. And taxes.

Q. Now, Mr. MacVicar, the testimony here on the part of complainant and from which the inference might be drawn that this ordinance was passed without any previous investigation of conditions as to the reasonable cost for manufacturing and distributing gas that it was precipitated after this correspondence between you and Mr. Haines referred to in the record. I will ask you if that is true or not, or whether the ordinance was reported by you after having made a full and thorough investigation?

Objected to on part of complainant as being incompetent and calling for the mere statement and conclusion of the witness instead of a statement of facts as to what he did.

3923 A. I made quite a thorough investigation, which determined in my judgment that a 90 cent rate would not be unreasonable to the company.

Q. And when the ordinance — introduced in the city council, was it discussed by the members of the council before it was put upon its final passage?

A. It was discussed to a certain extent by the council, in a general way the question of the reasonableness of the rate and the advisability of its passage, and it was unanimously passed by the council.

Q. Some of the letters which are referred to in the record from Mr. Haines to you, contained an invitation to examine the books and accounts of the company, and I will ask you to tell the Master what you did with respect to that.

A. I felt, as I stated in my letter to Mr. Haines, that any examination that we might be able to make probably would not determine the justness of the 90 cent rate or against it, and stated I believed that probably the books would not give us the information that would determine that question. However, shortly after the passage of the ordinance, Mr. Haines was writing letters commenting on the work of the council, the action of the council, and I asked Mr. Schramm and the auditor to ask permission of the company to look over the books, which they did, and were refused.

Complainant moves to strike the answer just given as immaterial and as a request for an examination claimed to have been made after the ordinance was passed.

Q. Was your attention called, Mr. MacVicar to the defendant's Exhibit 8 in this case, being an appraisal of the property of the Des Moines Gas Company, made by the Des Moines Gas Company?

3924 A. I think not; I have no recollection of it.

Q. I want to ask you this, Mr. MacVicar, I notice in some of the correspondence between you and Mr. Haines referred to in the record, it was stated that the Company had not an inventory of its property, but that one was in process of making?

A. I was advised one was in process of making.

Q. Do you know whether or not then the defendant's Exhibit 8 which is a study of the life of the Des Moines Gas Company was in existence at that time or not?

A. I don't know that it was.

Q. Did Mr. Haines at any time show you the inventory or what purported to be the inventory of the Des Moines Gas Company, in whole or in part?

A. I think not.

Q. Now, Mr. MacVicar I want to ask you something about the paving conditions in the city of Des Moines; for instance, asphalt paving, about the range of prices during the last year, that is to say, the price which the city is securing for asphalt paving of streets?

Objected to on part of complainant as immaterial, incompetent and the witness not being shown to be competent.

A. In the past year we have paid for asphalt pavement laid on residence streets, including five inch concrete foundation, one inch binder and an inch and a half wearing surface, from \$1.55 to \$1.65; and on business streets, on 6 inch concrete foundation, one inch binder and two inch wearing surface, \$1.90 to \$1.95.

Q. Now some objection was urged here to your qualification to testify on this subject. I ask you if in your position as superintendent of streets and public improvements you are not charged with the duty of looking after the streets and paving of the streets?

A. That is in my department, directing the improvement and passing upon the work and contracts.

Q. In that way you have become familiar with the prices for paving in the city of Des Moines?

A. Yes.

Q. Secured after receiving competitive bids?

A. Yes.

Q. Now, what has been the range of prices with respect to brick paving?

A. We have done comparatively little brick paving the past year. Previous to that time our brick paving has cost, in the most approved manner in the residence streets, in the neighborhood of two dollars a square yard.

Q. That includes a concrete base of five inches?

A. Five inches, and cement filler, vitrified brick.

Q. What is the character of the top dressing?

A. On brick, simply a cement filler.

Q. And has there been any creosote wood block paving put in in the last year or two?

A. Yes.

Q. At what prices has the city been able to secure paving of that character?

A. From \$2.60 to \$2.85 depending upon the condition of the foundation on which it was laid.

Q. The pavements in the city of Des Moines are constructed of what material?

A. Some cement pavements, some brick, some asphalt, and creosoted block.

3926 Q. Now, I believe you have told us the range of prices on the different kind of pavements except cement.

A. We have two streets and a number of alleys, and other contracts are being let for the paving with cement.

Q. What is the cost per square yard for that character of pavement?

A. We received bids during the past week at \$1.24 for cement; we have paid as high as \$1.50 or \$1.55.

Q. Do you keep in mind Mr. MacVicar the unit prices, that is the cost rather, to the city for excavating and for removing earth from the streets?

A. I have not.

Q. I believe Mr. Dobson mentioned one experience in the city of Des Moines while upon the witness stand—on west Seventh street—where the city excavated or did some excavating to change the grade of the street, at a lower price than that of a public contract; do you recall the facts in that case?

A. The work on West Seventh Street was done by private contract; similar work was done on Ninth Street and elsewhere, and has demonstrated to the city we could do the work at a less rate than we paid by contract.

Mr. BRENNAN: I think all the letters referred to in Exhibit 44, which I am about to offer have already been introduced in evidence by Complainant. We want to have it in this form if there are no objections on the other side, we will offer the exhibit in evidence in that form. What I want to know is if you will waive the identification of Exhibit 44.

Judge CARR: Oh, yes. We will admit that the exhibit is a correct copy of the letters which it purports to be a copy of.

3927 Mr. BRENNAN: We now offer in evidence Defendant's Exhibit 44.

Objected to on part of complainant for the reason that it is immaterial and only tends to encumber the record and for the further reason that the originals or admitted copies of the letters are already in evidence.

Cross-examination by Judge GEO. H. CARR.

Q. When was it, Mr. MacVicar, that you were appointed by the council as a committee to take up the matter of a new ordinance for gas?

A. Some time in October 1910.

Q. Now was there anyone else appointed for that purpose besides yourself?

A. I think not.

Q. Wasn't the City Solicitor or the Corporation Counsel also appointed?

A. The minutes there will show.

Q. What is your recollection of it

A. My recollection is that it was the head of the department; it might have included the solicitor.

Q. If it did appoint the solicitor, or the legal department, you have forgotten about it?

A. I have forgotten.

Q. Your present recollection is you and you alone were appointed to perform this service?

A. That is my recollection.

Q. I will call your attention, Mr. MacVicar to a copy of the journal of the city council under date of October 21, of last year, and will ask you to refresh your recollection by reading that
3927 1/2 and tell me whether you are not mistaken in supposing you were the only person who was appointed on that committee?

A. "That the superintendent of the department of streets and public improvements and the legal department be requested to recommend a new schedule of rates, etc." I was in error. However I will say I did consult with the city solicitor concerning the matter.

Q. That is the action that was taken by the city council to which you referred?

A. Yes.

Q. That resolution appointed you, who were the superintendent of the department of streets and public improvements, and the legal department to recommend to the council a new schedule of rates and regulation; that is the authorization from the council to you to which you have previously referred in your testimony?

A. Yes.

Q. Did you make any written report to the council?

A. The report made was in the form of an ordinance and possibly a report accompanied it.

Q. Then your answer is you made no written report except to present an ordinance of which you now have no recollection?

A. None.

Q. Isn't it a fact you made no written report except to present the ordinance?

A. I would not say that it was because I find my recollection is not always reliable and there may have been a written report accompanying it.

Q. Is it possible that you on so important a matter and concerning which you have taken so much investigation, could have made a written report and yet not have any recollection of it?

3928 A. I might have done so. I think the instructions were to frame a rate ordinance, is it not?

Q. You have read the instructions from the council for your authorization to act. But you will say, unless the record shows to the contrary that you made no written report; you have no recollection making or filing with the council any written report of your investigation on the subject of rates prior to the passage of this ordinance, which was passed on the 27th day of December, 1910?

A. Such a report may or may not have been filed; I cannot now recall.

Q. I want to get that right, Mr. MacVicar, if I can. Your testimony is that you have no recollection of having prepared or filed with the council such report?

A. I cannot recall filing such a report, though it may have been filed.

Q. Can you recall having prepared such a report?

A. I do not recall having prepared such a report, although it may have been prepared.

Q. That is as definite as you can be on the subject?

A. Yes.

Q. If there was a written report prepared by you and filed with the council, it is fair to assume that it is still with the records of the office of the clerk of the city council?

A. It would be on record.

Q. Will you examine the files there or records and see if you can discover any such written report and if you find it, let us know?

A. I will.

Q. Now the legal department did however file a report prior to the passage of this ordinance, did they not, Mr. MacVicar?

3929 A. I do not recall.

Q. For the purpose of refreshing your recollection I will call your attention to page 1192, of the printed copy of the journal of the city under date December 27, and will ask you having refreshed your recollection to state whether or not the legal department did not prior to the passage of the ordinance file a written report?

A. I believe roll call 2994 is the report of the department of streets and public improvements which states: I beg to report herewith an ordinance fixing rates and calling attention to the communication of the city attorney accompanying the same, etc.

Q. Now that is the report which was filed as you now recall by the legal department at the time that you presented the ordinance?

A. It is.

Q. Now, having examined the record of the proceedings under that date, can you state whether you filed any written report aside from presenting the ordinance?

A. I have no recollection of any other report than you find there.

Q. Was this communication from the legal department read to the council before they acted upon this ordinance?

A. I think it was.

Q. Do you know whether it was or not?

A. I would say it was. We always extend that courtesy to the communications from the city solicitor.

Q. Do you remember by whom it was read?

A. Naturally would be read by the clerk.

Q. Was there any discussion of this report prior to the passage of the ordinance?

3930 A. I can't say as to that; possibly it was; most of those things are discussed.

Q. There was no discussion of the communication from the legal department that you now have in mind?

A. No particular discussion. These matters are always discussed: undoubtedly there was some discussion.

Q. But no such discussion as now leaves any impression on your mind?

A. No.

Q. This communication from the city solicitor has the following language: "It is the duty of the council to fully and fairly investigate and prescribe a rate that will be compensatory, that is, just to both the owner and the public. The right to regulate is not unlimited." Do you now recall that statement in the communication as having been under discussion at all by the city council prior to the passage of the ordinance?

A. I understood those were the facts.

Q. Just kindly confine yourself to an answer to my question.

A. I don't recall it.

Q. Now, when was your report made to the council in the way that you say you made it, that is, by presenting the ordinance with your recommendation for its passage?

A. I think you have the minutes there that would give the exact date, October some time.

Q. Was it December?

A. Yes, December.

Q. On the 27th day of December?

A. The 27th day of December.

Q. That was the day on which you presented the ordinance to the city council with your recommendation that it pass, and
3931 that was the day on which the communication from the legal department was also presented to the council, was it not?

A. It was.

Q. Do you remember what time in the day it was that this ordinance was presented together with this communication and your recommendation that the ordinance pass?

A. Our meetings are almost invariably in the forenoon; so I judge it was in the forenoon.

Q. So that it was in the forenoon?

A. Yes.

Q. What time in the forenoon did you convene?

A. Usually at nine o'clock.

Q. And was that the time you convened on that particular occasion?

A. Nominally at nine, very likely nearer ten.

Q. Is it your recollection that is about the time you convened on the 27th of December?

A. I have no recollection as to the exact minute.

Q. But your impression would be that would be about the hour?

A. Between nine and ten.

Q. Do you know at what time in the day the ordinance regulating or attempting to regulate the price of gas was passed by the council?

A. I don't remember.

Q. Can you tell the Master about how long after you presented it with your recommendation it was before it was taken up for passage?

A. It was taken up at the same meeting.

Q. About how long in minutes after it was presented?

A. I couldn't say whether it was five or ten or fifteen minutes' discussion.

3932 Q. Fifteen minutes, would that be the outside limit?

A. Not necessarily; it might have been discussed for an hour.

Q. But your recollection is about fifteen minutes?

A. I said I didn't know whether it was fifteen minutes.

Q. Now in the discharge of this important duty that rested upon you and the council, your recollection of the matter is so vague that you are not able to say, Mr. MacVicar, as I understand it, whether it might have been under discussion five minutes or ten minutes or fifteen minutes or possibly longer?

A. It was under discussion for nearly three months.

Q. This ordinance?

A. The rates were under discussion for nearly three months.

Q. By the council?

A. By the proper department of the council.

Q. What is the proper department of the council?

A. The department to which this was referred, the department of streets and public improvements and the legal department.

Q. The department of streets and public improvements is the proper department to consider and determine and recommend rates for gas or water or any matter of that kind the council have to do?

A. Under the Des Moines organization the departments are divided into five heads and they all have their specific duties and they are largely guided by the reports from that department; so that it was the proper department.

Q. That is the department that has to do with these regulatory measures as you construe the law?

A. Yes.

Q. Now as a matter of law the power to fix rates is vested in the council as a whole, is it not?

A. It is.

3933 Q. Now, from the time the ordinance was presented until it was passed, that time would be measured as you think by minutes and possibly might have been an hour?

A. That is true.

Q. And that is all the discussion that the council as a council gave to this ordinance from the time it was presented until it was passed?

A. That is all as a council.

Q. Was there any notice given to Mr. Haines or any one representing the Gas Company that this ordinance would at that time be presented to the council?

A. Notice was given Mr. Haines that an ordinance would be presented about that time to the council.

Q. What do you refer to, these communications of yours published in the newspapers?

A. I have that in mind.

Q. That is the only notice that he received, is it?

A. Why he certainly had notice from time to time that the council had this under consideration, and the contract for rates expired the

first of January, and he naturally would understand by that we might fix a rate under which he might proceed properly——

Complainant moves to strike the answer as not responsive, incompetent and a statement of a conclusion.

Q. Now, I will again ask the question, did you give Mr. Haines any notice of that meeting at which that ordinance was presented and acted upon?

A. That is a different question. I did not.

Q. Did you give him any other notice of any action on the part of the council with respect to fixing rates except the published letters that you addressed to him?

3934 A. Oh, yes; he was aware and learned from me the council had under consideration the matter of rates.

Q. Was that in the discussion or talk with Mr. Haines to which you have already referred in your testimony?

A. The numerous interviews I had with him and the letters.

Q. That is what you now have in mind?

A. Yes.

Q. Now did you as a member of the council have in mind in passing this ordinance—you say it was passed within a few moments, or a very short time after it was introduced—have in mind that it was your duty to fully and fairly investigate and prescribe a rate that would be compensatory and fair to the Company as well as to the public; did you, I say, have it in mind, at that time that was your duty under the law?

A. I certainly did.

Q. Did you in reporting this ordinance to the council call their attention to their duty as members of the council in this regard?

A. That was fully set forth in the report of the solicitor to me, which I submitted to the council as my report.

Q. Which you think was read, but you are not sure?

A. I said it was read.

Q. Now, having in mind, Mr. MacVicar, that it was your duty to fully and fairly investigate as to the rate, so that to the end it would be reasonable, just and fair to the company as well as to the public—you say that at the time the ordinance after the ordinance was introduced the only consideration that was given it was some around-the-table discussion by the council at that time?

A. No, I didn't say that.

3935 Q. At that time I mean, after the ordinance was introduced?

A. After the ordinance was introduced that was all the consideration it had. It was, however, fully considered for three months previous to that time.

Q. It was fully considered three months previous to that time?

A. Yes.

Q. Will you tell the Master what was considered fully three months previous to that time?

A. The question of whether Des Moines was entitled to a lower rate than one dollar for gas.

Q. When and where was that fully considered for three months?

A. It was considered by the department to which it was referred and by the city solicitor, after due consideration and investigation as to rates paid elsewhere; investigation as to its probable investment and income.

Q. I am not now asking you what investigation was made. I am trying to fix the time of the investigation you say was made three months prior?

A. It was by the superintendent of the department to which it was referred, by the solicitor in conference, and in conference with Mr. Haines of the Gas Company.

Q. Then you say that the council three months before this ordinance came before them for action had made a full investigation of the reasonableness of the rates and by a discussion between yourself and the city solicitor and in your conferences with Mr. Haines?

A. That is correct.

Q. That is the full and fair investigation now that you say the council gave to this question?

A. It referred it to the department whose duty it was to pass upon these matters.

3936 Q. Then the truth is that the council simply acted upon your investigation?

A. I did not say that. They undoubtedly had some information of their own on that question.

Q. Do you know what they had?

A. I know only from brief talks with them. I know Mr. Schramm had some knowledge of the value of the plant as set forth by Mr. Haines of the Gas Company. I know Mr. Schramm had an intelligent conception of matters of that kind. Mayor Hanna was a student of the matter of rates, etc.

Q. Now let us take Mr. Schramm; you say Mr. Schramm was posted on the subject of what was a fair, compensatory rate, because he had, as I take it, assessed the company and had some statement from some officer of the company as to the value of the property?

A. Yes.

Q. Now how long before this 27th day of December, 1910, was it that Mr. Schramm had received this information?

A. I imagine that was a year or so; maybe less. I don't remember now when that report was made that was referred to here.

Q. Do you know what was the last year Mr. Schramm was assessor?

A. He was assessor until the 1st day of April, 1908.

Q. Well, now, this information that he secured must have been prior to that?

A. Prior to that.

Q. Do you know how long prior to that?

A. It may have been just the year previous, about the 1st of January previous; possibly a year; I don't remember.

Q. Probably the latter part of 1907, when the statement was made in the year 1907?

A. Yes.

3937 Q. Then the information that you referred to that Mr. Schramm as a member of the council had, to enable him to pass intelligently upon what was a fair and reasonable rate was a statement in the report made to him by some officer of the company more than two years prior to the time you were taking action?

A. I don't remember the dates. He had also in addition to that Mr. Haines' letters which were published and which he read.

Q. You say he had that?

A. I talked with him concerning the letters and am quite sure he read them.

Q. So that you know he read them?

A. Yes.

Q. Now this information Mr. Schramm had, the fact that he assessed this property two years before, and the fact that he had read *the* these letters of Mr. Haines, that is the information that Mr. Schramm had?

A. Yes.

Q. Now, about Mayor Hanna, what was his information, so far as you know?

A. I know that he is a student of economic questions of this nature and would have general information; and he is quite a close student. What information he may have had, I couldn't tell you.

Q. So now the knowledge Mayor Hanna had on the subject so far as you know is his general knowledge as a student of economic questions.

A. So far as I know he may have had other knowledge.

Q. Let us see, you have some other men down there; there is Mr. Roe. What information did Mr. Roe have on the subject?

A. Mr. Roe is an attorney, and he ought to be informed on matters of this kind; also an intelligent man.

Q. You are assuming all attorneys know what would be a
3938 reasonable rate without investigation?

A. Well, I think it is the duty of an attorney to investigate those matters.

Q. So far as you know, Mr. Roe had no information on the subject and had made no investigation of the subject, isn't that true?

A. I wouldn't put it that way. I would say that so far as I have any knowledge to the contrary he may have had most full information.

Q. I say, so far as you have any personal knowledge Mr. Roe had made no investigation of this subject?

A. That is true.

Q. You still have other members of the council, Mr. Ash, what information so far as you have personal knowledge, did Mr. Ash have on the subject of what was a reasonable rate prior to the time he voted for the adoption of this ordinance?

A. I think that Mr. Ash probably had as much information—

Q. I am asking for your personal knowledge.

A. I could not speak for Mr. Ash.

Q. So far as you know then, Mr. Ash had no knowledge on the

subject, no special knowledge on the subject to enable him to determine what would be a fair rate?

A. Yes, I know that he did have some knowledge.

Q. What do you know he had?

A. I know he had before him the report setting forth the situation.

Q. You say he had before him the report, by that you mean the letter of Mr. Brennan?

A. Yes.

Q. What information does that contain?

A. I think it recommends the ordinance.

Q. What information does that letter contain which would
3939 enable him to determine what is or was a fair and just rate?

A. If you will let me have that I can read it and find out. (Presents paper to witness) In a general way as I pick out the paragraph here: "In the experience of Des Moines and other cities as to the results of increased consumption, the cost of furnishing gas does not increase in proportion to the amount of gas furnished. The question of how much of an increase can only be answered definitely and correctly by a practical test of the ordinance." That is one paragraph.

Q. You think that is the information which Mr. Ash acquired and upon which he acted?

A. I didn't say that.

Q. So far as you know that is the only information upon which he acted.

Objected to on part of defendants as not proper cross examination and incompetent in the form in which it is asked.

A. I am not competent to pass upon what Mr. Ash may have known.

Q. I am trying to get at what personal knowledge you have as to the information he possessed.

A. That would be very difficult for me to give you. I have no idea what the other members knew.

Q. Now, to clear the matter up, as I understand it, so far as you have any personal knowledge, the only information possessed by Mr. Ash at the time he voted on this ordinance was the information contained in this letter from Mr. Brennan in which he said he thought the 90 cent rate was all right and what you said?

A. I have no knowledge of what Mr. Ash may have known on this subject, other than what the discussion might have brought out about the table at that time.

3940 Q. So far as you know he had no other information on the subject than what you refer to?

A. Unless the discussion might have brought it out at the time.

Q. By the discussion you mean the discussion had there for a few moments or an hour at the most that this ordinance was under consideration by the council?

A. Yes.

Q. That discussion was not of a character which impressed itself

upon your mind in such a way that you can give us any idea what it was or the length of time it occupied?

A. It was not.

Q. Now, Mr. Brennan has inquired of you as to what you were aiming to do, and you told him you were trying to pass an ordinance that would be a fair ordinance, compensatory to the company and just between it and the public. Now what is your conception of what is involved in that proposition, that is, what is involved in the question of determining what is a fair rate of return?

A. The cost of production, the cost of distribution, the investment, the reasonable return upon the investment, the cost of operation and the depreciation.

Q. Do you consider and did you consider as involved in the proposition the question as to the value, the present value of the property which was used and useful in the business of manufacturing gas, owned by the company?

A. That I understood was a factor.

Q. How important a factor did you regard it?

A. A very important factor.

Q. Did you understand it to be the basis of the whole proposition?

A. It would — a basis of the whole proposition.

Q. Now upon that very important element in the problem
3941 which you had before you, I wish you would state again just exactly what information you had as to the present value of the property of the Des Moines Gas Company here in Des Moines, used and useful in the business of manufacturing gas.

A. I had the knowledge from the previous showings of the company from time to time as to the investment. I had some knowledge of the additions to the plant from time to time, and I had a fair approximate idea of the probable value of the plant.

Q. Now you say you had knowledge of the showing of the company as to previous investments; you had knowledge of the expenditures for extensions; and subsequent investments, and what else, what was the last?

A. You didn't get the second right.

Q. You said you had a fair knowledge of the probable value of the plant?

A. Yes.

Q. That is the whole proposition?

A. Not the whole proposition.

Q. I mean so far as the value of the plant is concerned?

A. Yes.

Q. Will you tell the Master how you got this knowledge of the approximate value of the plant, how you obtained it?

A. I was aware of the showing of the investment in the plant in the early totals for the regulation of rates in 1893 or 1894. I had knowledge of the showing made by the company to the assessor of the value of the plant, and I had Mr. Haines' letters.

Q. And that is the sum total of your knowledge by which you

were able to reach in your own mind and to your own satisfaction a fair approximation of the value of the property, is it?

3942 A. That was my information. Also the discussion with the attorneys relative to the showing from time to time of the investment on the additions to the plant, etc.

Q. With what attorneys?

A. Mr. Brennan.

Q. By previous investment to what do you refer?

A. I refer to the additional mains laid; the previous showing, and earlier showing. To the showing made when the city was endeavoring to establish a \$1.25 rate in 1893.

Q. The showing that was made in 1893, some 18 years prior to the present time?

A. Yes.

Q. Now then you say that you had some knowledge of subsequent investments in the property?

A. Yes.

Q. Did you have in mind, did you then know and can you now state what you then knew as to the character of the property as it was in 1893, the probable number of miles of mains and the general magnitude of the property at that time?

A. I knew that at that time, I recall there was something like 40 miles of mains or less. The valuation was considerably below \$500,000. I knew they had added to their stations of the mains, now amounting to 140 miles or thereabouts. They had added some property, one gas holder, I believe, in that time.

Q. What information did you have in mind at the time you was passing on this ordinance which you can now state as to the cost or value of these extensions and additions to the property since 1893 and 1894?

A. I could not state specifically the additional cost of any of those improvements, except in a general way to estimate the proportionate increase in the plant and compare it with the original showing of the investment.

Q. Did you have any information, or did you seek to obtain any information which would give you any definite idea as to what the additions and extensions of the plant since 1893 or 1894 had cost?

A. I had no means of getting any such information that could be in my judgment relied upon.

Q. Did you make any effort to obtain any such information?

A. No.

Q. Did you ask the company to furnish you any information on that subject?

A. I think not.

Q. You assumed the company would know something about it, didn't you, have some record of it?

A. I believe the Company knew.

Q. Then I inquire why, if you were trying to ascertain the value of this property you did not at least inquire from somebody who had the information what the additions and extensions to the property since 1893 had cost?

A. Because from previous observation and experience I did not believe I would get any information that would be of any value in determining a reasonable rate for gas.

Q. Because of some experience, you felt that if you went to Mr. Haines and asked anything about the matter, he wouldn't tell you, or wouldn't tell you the truth, is that it?

A. I would not call into question Mr. Haines' veracity. I would say probably I would not get the information.

Q. You do not want to leave the impression that you had previous experience with Mr. Haines that would lead you to distrust his word?

3944 A. I have had some previous experience with the Gas Company I called into question.

Q. I am talking about Mr. Haines, who was president and manager of this company?

A. Yes, I would not have thought he was acting personally; it was the company I was dealing with.

Q. Now, Mr. MacVicar, had you ever had any experience, prior to December 1910 in the operation of a gas plant or in the construction of a gas plant, or any practical knowledge of a gas plant, more than people generally?

A. As to the knowledge of the matters of fixing rates and arriving at rates with the Gas Company I had some experience.

Q. You are not an engineer, are you?

A. I am not.

Q. You never have been a builder, have you?

A. No.

Q. You do not claim to have any more knowledge on a subject of that kind than is possessed by people generally?

A. I have had some experiences which ought to be of some value in dealing with public service companies.

Q. You do not regard yourself competent to make an appraisalment of the property like the Des Moines Gas Company?

A. I do not.

Q. So that when you say that you had in your own opinion a fair idea of the approximate value of this property, you mean no more than you just had a notion about it?

A. Merely an estimate based upon such information as was obtainable that was reliable.

Q. That is the information you have given?

A. Which I have referred to.

3945 Q. Now you have laid some emphasis upon the statements of the company for assessment purposes made more than two years before the time you were acting. There were later reports made by the company as to the value of the property?

A. Undoubtedly there was.

Q. You didn't take those into consideration?

A. There were none—I had none before me at that time.

Q. Well, you have now given us, I take it what basis you had from which you could form an opinion of the value of the property as it was on the 27th day of December, 1910?

A. Yes.

Q. That is the sum total of it?

A. Yes.

Q. Now, involved in this question was something further, was there not, this question of a reasonable rate?

A. Yes.

Q. Now, with regard to the value of the property, you knew on the 27th day of December that the company was having an inventory made of the property, did you not?

A. I understood it was having an inventory made.

Q. You had been so informed?

A. Yes.

Q. You knew the men were at work at it?

A. I have been so advised.

Q. You knew one of your own engineers then or shortly after took part in the work?

A. Mr. Maxwell was delegated at my suggestion to go with the engineers that were making the estimate and check certain blue prints, etc.

Q. How did that come about, Mr. MacVicar?

3946 A. Well, Mr. Haines advised us they were making an inventory and asked us to delegate somebody to accompany the engineer in the work.

Q. Do you remember when that was you delegated Mr. Maxwell to work with the company's engineers in making this inventory?

A. I think that is referred to in his letter of December 2nd, "asked Engineer Budd to delegate Mr. Maxwell," etc.

Q. Now did you prior to the action taken by you on the 27th of December obtain any report from Mr. Maxwell?

A. Talked with him incidentally about the work.

Q. That was the extent of the report you received from him?

A. It was.

Q. Mr. Maxwell from the 2nd day of December worked with the company's engineers or employes in making this inventory continuously until it was completed, did he not?

A. I believe he did.

Q. Do you know when the work was completed?

A. I do not.

Q. Do you know how near completion it was on the 27th of December?

A. I did not.

Q. Still knowing that this work had been going on for then nearly a month in which one of your own engineers was taking part, the only report you took from him as to the property was simply some incidental talk about the investigation he was making?

A. I took from him sufficient of the report to satisfy me there was no information there of any value to the city in fixing rates.

Q. It didn't take very much information to satisfy you, did it?

A. I was looking for information and glad to have received any authentic information on the subject.

3947 Q. And you say that the information you might have received in detail from Mr. Maxwell, who had been working

for nearly a month in inventorying this property, you regarded as being of no particular value to you whatever in determining what was a reasonable rate?

A. It would not serve the purpose of determining a reasonable rate for gas in Des Moines.

Q. In other words, you preferred to rely as to your conclusion as to the value of the property on this information that you have already alluded to, rather than to get from your officer a detailed inventory of the property? That is correct, is it not?

A. I believed, that giving the Company the benefit of every possible doubt, 90 cents was reasonable, and that we would not be able from the information obtainable to secure data that would give us more reliable information than we already had.

Q. Isn't it true, Mr. MacVicar, that you started this so-called inquiry with the assumption that the 90 cent rate would be compensatory and a fair rate, and that having started with that assumption, you discarded everything which you thought might possibly lead you to a different conclusion, as being something that was wholly immaterial; isn't that true; hasn't that been your attitude?

A. No, I wouldn't say that was strictly true. First Mr. Brennan and myself took up the question whether or not an 80 cent rate would not be what the City of Des Moines was entitled to. Mr. Brennan particularly believed that we were entitled to an 80 cent rate. But my previous experience led me to believe we probably could not substantiate that in the courts, and we concluded to give them the benefit of every doubt and fixed it at 90 cents.

3948 Q. Then in conference with Mr. Brennan, he said, let's try an 80 cent rate, and fight that out?

A. He did not invite a fight on an 80 cent rate, but he did suggest we were entitled to an 80 cent rate in Des Moines.

Q. You said to him, judging from some of our past experience, I do not believe we can get the Courts to sustain an 80 cent rate?

A. That is right.

Q. What did you mean, from previous experience?

A. Well, our experience in the previous contests, where it was proven by the Gas Company that gas could not be made in Des Moines for a less rate than about \$1.40, I believe, but that it was disproven to be not according to the facts, because the Company within a short time did reduce the rate to \$1.30 and made more money than any time previously.

Q. Then your idea was, as I understand you, if you fixed an 80 cent rate the courts would not sustain it?

A. I was afraid they wouldn't.

Q. Why, were you afraid they wouldn't?

A. Well, I believed we did not have at hand sufficient evidence to combat the evidence that was available to the other side. I remember in our early case——

Q. Wait a minute.

A. I want to answer your question.

Q. If you insist on going on, I have no way of stopping you.

Therefore you concluded not to accept Mr. Brennan's recommendation to report an 80 cent ordinance?

A. Yes.

Q. That was the only reason?

A. That was the greatest reason, yes.

Q. Well, was it the only reason?

3949 A. Well, we had in a general way believed we were entitled to an 80 cent rate, considering the quality of gas being manufactured; it was a low grade gas. We believed that quality of gas could be furnished to us at 80 cents, but we were afraid we could not sustain that rate because of a lack of available evidence.

Q. Now then, that was the reason that you feared you could not sustain it; that was the reason and only reason that kept you from passing an 80 cents ordinance?

A. I wouldn't put it just that way.

Q. Now, after consideration, such as you have now stated, with regard to an 80 cents ordinance, you concluded to adopt a 90 cents ordinance?

A. Yes.

Q. And that was your reason for adopting a 90 cent ordinance?

A. That we believed we could sustain it in the courts.

Q. And the whole inquiry then was it not, in coming up to the performance of this duty which devolved upon you, you approached it with the idea in mind, to simply fix a rate which you had made up — your mind the courts would sustain?

A. That sums it up.

Q. It was not then the broader inquiry, what will be a fair and just rate between the public and the Company, but the question was narrowed down in your mind, to the single question of what can we hope the courts will sustain; how low a rate the courts will sustain?

A. I would say in answer to that we had no reason to believe and did not believe that the court would be induced to sustain a rate that was not reasonable; we hoped to sustain this very reasonable rate at 90 cents.

Q. But the fact remains that you first determined, what
3950 in your judgment was a rate that you had hoped the court would uphold and then went on and passed your ordinance?

A. That is not correct.

Q. Isn't it true that you approached this question wholly from the standpoint of getting a rate as low as you thought could possibly be sustained, and only then considered the elements which go into the determination of what is a fair and just rate?

A. We first considered what would be a fair rate, just the contrary. and then discussed the possibility of sustaining that rate, before the court, with the evidence available to the City.

Q. Then, in approaching in that way, you recognized the first thing to determine was what was the reasonable present value of this property; you realized, that was the first inquiry?

A. Yes.

Q. And you ascertained and determined that question in the manner in which you have now stated?

A. Yes.

Q. Then there was involved the question of the amount of return the Company was receiving under the dollar rate?

A. Yes.

Q. Did you accept Mr. Haines' statement in the first letter written to you, as to what the receipts of the Company had been in the past?

A. We accepted that as approximately correct.

Q. Did you accept it as correct?

A. Personally, considering the matter, I believed this a correct showing of the income.

Q. You believed Mr. Haines had truthfully stated to you the facts?

A. Relative to the income, yes.

At this time an adjournment was taken until 9:30 A. M. September 25, 1911.

3951

Monday Forenoon Session.

SEPTEMBER 25, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JOHN MACVICAR, continuing his cross examination, examined by Judge Carr, testified:

Judge CARR: If the Court, please, I find in looking over the transcript of the short hand reporter of the proceedings on Saturday that in making objections to the admission in evidence of Exhibit 44 the word immaterial is used in a manner that might be misconstrued. We of course did not intend to object to the letters as immaterial, but only to object to the additional copies as being surplusage and unnecessary, and therefore immaterial. So I will withdraw the objection appearing to Exhibit 44 and substitute the following:

Complainant objects to the admission of Exhibit 44 in evidence as it is a mere additional copy of what is already fully in evidence and therefore is an unnecessary encumbering of the record.

Q. Mr. MacVicar, on Saturday when I inquired of you as to whether a written report to the council with respect to the ordinance in controversy, you stated that your best recollection was that you did not, except of course to file the report from the legal department, but you said you would verify your recollection on that subject by examining the files in the clerk's office to see if there was any such report; have you done so?

A. I have looked further over the minutes that you have there and find that my report was the submission of the communication of the legal department to me and the ordinance prepared by them—that in my judgment was the report I made.

The MASTER: If I understand you correctly, you simply adopted the report of Mr. Brennan as your own?

A. The report of Mr. Brennan was addressed to me as the head of the department and I incorporated it into my report to the council.

The MASTER: That was made orally.

A. No.

Q. Mr. Brennan's report to you was in writing?

A. And my report to the council was in writing.

Q. The Journal shows this: "Report of Superintendent of the Department of Streets and Public Improvements, stating that, I beg to report herewith an ordinance fixing gas rates, and call your attention to communication of City Attorney accompanying same, presented, to which was attached the following communication from City Solicitor."

A. That was my written report.

Q. That was the sum total of the written report as set forth in the Journal which I have just read?

A. Yes.

Q. You stated on Saturday, Mr. MacVicar, if I understood you, that session of the council on the 27th day of December was a forenoon session?

A. I say so because nearly all our sessions are in the forenoon; I don't remember definitely.

Q. It is your recollection you did not have a session on that date in the afternoon?

A. That would be my judgment; I have no recollection of it.

Q. Let me ask you this; when you have an afternoon session the Journal shows that you have an afternoon session?

A. I would judge so; I think it states the hour of convening.

Q. I call your attention to the printed journal of the city council published February 4, 1911, which covers the meetings beginning, I think, with December 19, and which also covers the meeting on the 27th, and call your attention to page 1171 of the Journal, which you will note shows an afternoon session on that day?

A. Yes; was this the same day?

Q. Apparently it was, but all I wish to do is to call your attention to the fact that the clerk in making up the journal generally shows when there is an afternoon session?

A. Yes.

Q. The adjournment having been until two o'clock?

A. Yes.

Q. Now, the journal of the meeting of December 27th shows that at the close of the meeting the council adjourned to meet Friday, December 30th, 1910, at nine o'clock, and there is no record of any afternoon session and which would tend to confirm your recollection that there was no afternoon session?

A. I would judge there was no afternoon session.

Q. Then, as you stated on Saturday, it would be your recollection that while the council ostensibly meets at nine o'clock, in reality it is generally nearer ten than nine when they get together and get down to business?

A. Yes.

Q. So that this session of the council on the 27th day of December,

it is safe to say, did not last more than two hours and some fraction of an hour?

A. Probably.

Q. Now, in order that I may if possible aid you in refreshing your recollection as to just what occurred at that meeting, I call your attention to the record of that meeting and will ask you to state, having refreshed your recollection on examination of the record, Mr. MacVicar, what was the first order of business taken up that session.

A. It would naturally be the roll call.

Q. Then having the roll call, what item of business was first taken up?

A. On December 27?

Q. Yes.

A. As stated by this record, roll call 2978 was the election of the city clerk.

Q. Now as to that matter, Mr. Susong was at that meeting elected city clerk, was he not?

A. I could tell from the records—we had several city clerks and I would have to look it up. (Witness examined Journal.) Yes, Horace Susong was elected city clerk.

Q. When that matter came up for action, it being a matter of some importance, I assume, Mr. MacVicar, there was some discussion among the members of the council with regard to it, was there not?

A. Little or no discussion.

Q. Had Mr. Susong been in the clerk's office prior to that time?

A. No.

Q. Was there any talk about his fitness for the place?

A. The matter was not formally discussed, as I recall, by the council.

Q. Well, I wouldn't say formal, but there was some talk, wasn't there?

A. Little or none. No other name was presented; it was known to all the members of the council this name would be presented; as I recall it, there was no discussion.

Q. It was a matter you think may have been canvassed before the meeting?

A. It was.

Q. Now passing to the next order of business, it appears to be roll call 2979, and which was a resolution for renewal of consent for the sale of intoxicating liquors by J. R. Schuster as successor to Schuster Brothers, No. 217 West Locust Street, for one year from the first day of January, 1911; treasurer's receipt for \$150.00 attached, presented. Moved by MacVicar that renewal of consent be granted and resolution adopted. Was there some discussion among the members of the council on that matter?

A. Very likely not. These matters are all canvassed in the office of the city treasurer and license collector, and when the city treasurer's receipt accompanies it the city council are made aware everything is regular.

Q. Do you know whether the matter was not discussed to some extent by the members of the city council?

A. I have no particular recollection.

Q. Now, the next order of business which was taken up as shown by this journal was No. 2980. "Report of Superintendent of Department of Streets and Public Improvements on resolution No. 2958 stating that we believe the actual value of Lots 15, 16 and 17 Curtis-Bluff Park, to be \$500.00, and recommend that the paving assessments against said lots be reduced to \$125.00 for each lot, presented. Moved by MacVicar that report be received and filed. Motion carried." What do you recall in regard to that item of business?

3956 A. It is the custom of referring matters pertaining to the various departments to the head of the department, and except in rare occasions, no further investigation is made and the council act upon the report of the head of the department.

Q. Well, was the report in this case in writing or oral?

A. That report you read was in writing.

Q. In making that report which was by you as superintendent of streets and public improvements, it contemplated a decrease in the assessed valuation of certain lots, apparently on the theory, I have assumed, that as assessed they were assessed too high. You gave to the council either orally or in writing some reasons for the conclusions you had arrived at and for your recommendation, did you not?

A. As stated there.

Q. You gave the council some information as to the investigation that you had made and the ground for your information, didn't you?

A. I did not; simply what is written there; simply the result.

Q. You think you simply made that statement either in writing or orally?

A. It was in writing.

Q. You think it was in writing?

A. I know it was.

Q. That of course was read?

A. That was read.

Q. Now do you now remember whether or not that report provoked some discussion or called for some explanation or talk back and forth among the members of the council?

A. It would be a rare thing to have a discussion of that matter from the council.

3957 Q. You realize that don't quite answer the question?

A. I don't remember that there was any discussion.

Q. Now the next item of business which seems to have been transacted that morning was the following: "Roll Call 2981. Be it Resolved by the City Council of the City of Des Moines: That the assessment against the following Lots for paving on Twenty-Fourth Street between Forest Avenue and College Avenue be and the same are hereby reduced as follows: Curtis-Bluff Park Addition. Lot 15 from \$195.04 to \$125.00. Lot 16, from \$162.54 to \$125.00. Lot 17, from \$162.54 to \$125.00.

And that the City Auditor be and is hereby instructed to draw warrants in the sum reduced in accordance with the terms and con-

ditions of the contract for the construction and payment of said paving." Do you recall that item of business; do you have any present recollection of it?

A. Only as it is recalled by me by your reading it.

Q. Having been recalled to you by the reading of it, do you remember to what extent that matter was considered by the council, and to what extent it was discussed by the members of the council?

A. Such matters are rarely discussed by the council, and that was probably not discussed.

Q. Have you any recollection on the subject as to whether it was or was not discussed?

A. I have no recollection that it was discussed.

Q. Have you any recollection that it was not discussed?

A. Only the fact that those matters are rarely discussed when reported on as that was, unless the interested parties appear and file proper objection.

Q. Then you want to rest your answer that you know it to be the usual custom of the council, rather than on your particular
3958 recollection of that particular instance?

A. Yes.

Q. Well, now, of course, on each one of those items of business, after it was presented and after the motion was made, in this case made by you, to adopt, then the roll was called by the clerk?

A. In the disposition of any question the roll is called by the clerk.

Q. Now the next item of business is roll call 2982. "Be it Resolved by the City Council of the City of Des Moines: That after full consideration of all objections filed, that the schedule of assessments and accompanying plat, showing proposed assessments for the cost of paving West Twenty fourth Street from Forest Avenue to College Avenue, filed by the Department of Streets and Public Improvements on the 28th day of November, 1910, be and the same are hereby approved after correction as recommended by Superintendent of Streets and Public Improvements, and that there be and is hereby assessed against and upon each of the lots, parts of lots and parcels of land described in said schedule, and the owner or owners thereof liable to assessment for the cost of the same, the respective sums expressed in figures set opposite to each of the same, on account of the cost of the construction of paving West Twenty-fourth Street from Forest Avenue to College Avenue; that said assessments are made and approved in said respective amounts upon
so much of said lots, parts of lots and parcels of land as lie within 150 feet of the abutting line thereof; and said assessments against said lots, parts of lots and parcels of land, are hereby declared to be in proportion to the special benefits conferred upon said property by such improvement, and not in excess thereof, and not
3959 in excess of twenty five per cent of the actual value thereof.

Be it Further Resolved by the City Council of the City of Des Moines: That there be issued by the city of Des Moines street improvement certificates to the total amount of \$8,191.17; one certificate shall be issued for each and every separate piece of prop-

erty assessed, as shown on said schedule, which certificate shall be for the amount of the special taxes assessed against such property. Such certificates shall transfer to the bearer all the right and interests of the said city in such assessments under the provisions of Chapter 8 of Title V, of the Code of Iowa and acts amendatory thereto.

Be it Further Resolved: That the Mayor and City Clerk be, and they are hereby instructed to execute said certificates, and when so executed that they be placed on file in the office of the city clerk for a period of thirty days from and after the date of the making of the said assessment, to-wit, the 27th day of December, 1910, to the end that the owner of any lot or parcel of land, (or railway or street railway against which an assessment has been made, may, within said time, promise and agree in writing endorsed on said bond or certificate, or in a separate agreement, that in consideration of having the right to pay his assessment in installments, he will not make any objection of illegality or irregularity as to the assessment or levy of said tax upon and against his property, and will pay said assessment with interest thereon.

Be it Further Resolved, that at the expiration of said period of thirty days, the City Clerk be, and he is hereby instructed to deliver said certificates to The Bryant-McLaughlin Paving Company, the contractor for the said improvement, and to take his receipt therefor, said certificates to be delivered to the contractor in payment of so much of the cost of the construction of paving on Twenty-fourth Street, from Forest Avenue to College Avenue, as is represented by said certificate. Moved by MacVicar to adopt. Motion carried." Do you have any recollection of the transaction of that item of business?

A. Simply the custom of adopting that formal resolution on motion to adopt the resolution. The resolution was not read, but it is the form of resolution that is adopted in every assessment of that nature that is made. The motion would be merely to adopt the assessment resolution.

Q. Do you mean to say your city council down there adopted a resolution of that character without it being read at all?

A. Yes.

Q. You mean to say that was not read by the clerk?

A. That was not formally read.

Q. Then it was read by the members of the council before they voted to adopt it?

A. Not in that instance.

Q. Did they know what it was?

A. Yes.

Q. Without reading it?

A. Yes.

Q. Without reading it?

A. Yes.

Q. Then they were told what it was?

A. They undoubtedly learned from the fact that they passed

hundreds of them previously that it is a staple form of assessment resolution.

Q. But they had to ascertain in some way what this thing 3961 was that they were voting to adopt?

A. I couldn't say.

Q. Wouldn't it be your impression now, some time was taken by the members of the council to at least find out what they were voting about, either having the resolution read or by being told by you as the mover of the resolution what that resolution was?

A. They knew what it was.

Q. How?

A. They knew it was a resolution to assess the amount stated in the schedule.

Q. How did they learn that fact?

A. From the reports before them; from the report and schedule.

Q. Then they must have read what was before them to have learned that fact?

A. I am quite sure they read what was before them.

Q. You think the members of the council knew what that was without being told and having read it?

A. They knew it was an assessment against the property.

Q. Then they must have read the reports?

A. They were read as stated, except the resolution.

Q. The next item of business that appears to have been taken up that morning was roll call 2983. "Moved by MacVicar that ordinance presented under Roll Call No. 2966 on December 22, 1910, do now pass. Motion carried." Then follows the roll call. Now do you recall what the ordinance of December 22nd, 1910, was?

A. I do not recall.

Q. It was some ordinance which at that meeting went to its third reading?

A. As stated there in the minutes; I don't remember.

Q. Do you read ordinances three times?

3962 A. Unless the rules are suspended.

Q. Unless the rules are suspended every ordinance after being admitted must be read on three separate meetings?

A. Yes.

Q. Then the ordinance was read?

A. If it so states there.

Q. You would expect it to be read?

A. Unless the rules are suspended.

Q. It reads: "Moved by MacVicar that ordinance presented under Roll Call 2966 on December 22nd, 1910, do now pass."

A. It may have been read three times before that; I wouldn't know. I would judge it had been read three times previous to it.

Q. You would judge this ordinance had been read three times previously and had not yet been put upon its passage?

A. Yes.

Q. Is that your custom of doing business?

A. It might be under certain conditions; it might be read three

times and laid over. The fact that it does not state here that it was read three times indicates it was read three times previously.

Q. In such a case, however, it would be laid over for further consideration?

A. Yes.

Q. And the further consideration came up at this meeting when the motion was made that the ordinance pass?

A. Yes.

Q. Do you remember what discussion was had between the members of the council in regard to that ordinance?

A. I could not recall that there was any discussion.

Q. Can you recall that there was not some discussion?

3963 A. I don't remember.

Q. Do you remember what the ordinance was?

A. I do not.

Q. You don't know what subject it was on?

A. I do not.

Q. Well, now the next order of business taken up that morning was Roll Call No. 2984. "Resolution for renewal of consent for the sale of intoxicating liquors, by John J. Wagner, at No. 409 East Locust Street, for one year from the 1st day of January 1911; treasurer's receipt for \$150.00 attached, presented. Moved by Schramm that renewal of consent be granted and resolution adopted. Motion carried." Do you remember what discussion there was with respect to that item of business before the council took action?

A. Very likely no discussion, as according to custom when the matter is reported with the treasurer's receipt attached it is ready for passage.

Q. Do you remember that there was no discussion with regard to that?

A. I have no particular recollection.

Q. Now in renewing these liquor consents, it is not the purpose of the council, of course, to renew those consents unless the applicant is deemed a proper person to conduct a saloon, is it? The council always have in mind, not only in granting consents but in renewing consents, whether the applicant is a fit person to be allowed to run a saloon?

A. That matter is left to the department in charge, and under the law, at least here the custom. I think, the Chief of Police reports on all conditions; these reports with the treasurer's reports when they reach the council are accepted.

Q. Then at least the reports from the Chief of Police and from the treasurer are read by the council or to the council?

3964 A. No, they are not, because the treasurer issues no receipt unless the reports have been made according to the ordinance, and therefore they are passed without further consideration when they know the treasurer has accepted and receipted.

Q. Under your method of doing business, is it true, as I understand you, that the treasurer is the man who passes on the question as to whether a man making an application for a permit to run a saloon is a proper person to whom a license should be granted?

A. The Chief of Police passes upon the condition of the saloon, whether it is in compliance with the law, and the treasurer upon receipt of such showing accepts and attaches the receipt, and if there is no complaint the council passes it without further consideration.

Q. Without further investigation?

A. Yes.

Q. But the council, at least, before taking action must know that has been done?

A. They know it is done when the reports come to them; they know in no other way.

Q. They at least take time to ascertain whether the report by the chief of police has been made to the treasurer?

A. They do not; that is entirely left to the head of the department.

Q. Then the action of the council in the matter is purely perfunctory?

A. So far as that matter is concerned, it is routine. The department supplies most of these inquiries and determines everything connected with and the council act upon it, unless there is something specially brought to their attention.

Q. I notice on that roll call the vote was not unanimous. Mr. Roe seems not to have voted, would that indicate there might
3965 have been some difference of opinion on the part of the council?

A. No, Mr. Roe evidently was absent from the council.

The MASTER: Don't you think you are getting a good ways from home?

Judge CARR: I do not. I think I am getting right at the proposition that is material in this case.

The MASTER: What they are doing in a whiskey case has not much to do with the gas case.

Mr. BRENNAN: It seems to me there is a lot of record being repeated on this record.

The MASTER: I take it they are not very formal in their work.

A. The volume of work is very large. We had a fifteen minute session this morning to dispose of all the business.

Q. You like to do business on record time?

A. We spend a good deal of time; we have made no serious errors I can think of.

Q. I am not trying to say that the council act with great deliberation. Now the next order of business was "No. 2985. Communication from Chairman of the Panama-Pacific-International Exposition, asking the city council to write to our congressmen to vote for San Francisco, the exposition city, presented." I assume this would be filed and not discussed by the council?

A. I think not.

Q. The only time given to that was sufficient to take the formal action which the record shows was taken?

A. Yes.

Q. Now the next order of business was "Communication from Superintendent of the Department of Schools and Public Improvements, stating that, in making out resolutions of necessity for paving Vine Street and Locust Street with creosote wood blocks, he 3966 has changed the guarantee period from the customary five years to one year, and recommending that we call for one year guarantee in place of a five year guarantee on creosote wood block, presented. Moved by MacVicar to receive and file." That appears to have contained a recommendation by you to change the matter of guaranty for paving from five years to one year. Now that matter was taken up with your fellow council-men, was it not, and the reason for the recommendation that you was making was gone into?

A. I think there was no formal discussion of that. It was a matter long in my department and I was presumed to be competent to pass upon it and report upon it and they accepted my view.

Q. Do you mean to be understood as saying a matter of that importance to the property owners and to the men who had paid for the improvement that an important change of the guaranty of the contractor from five years to one year, that that matter was taken up and acted upon on your mere statement to the council that you reported in favor of doing that without any discussion or consideration by the members of the council?

A. I would not say it was without consideration. These matters had been before the council before. Sometime before that they had cut off the guaranty on brick. Shortly before that we found we had to reduce the guaranty on asphalt from two to five years and it was known to the head of the department that it was a grave question among those who had given the matter study whether any guaranty should be exacted. It was an important matter the losses to the community, and the council believed, with the head of the department, that they had sufficient information, and adopted his views.

3967 Mr. BRENNAN: You mean the guarantee on asphalt was reduced from seven years to five years?

A. From seven years to five years; the bond houses refused to continue the seven year guaranty.

Q. This is the first time that the wood block paving matter was taken up by the council in that form?

A. The first time I brought it up.

Q. And you still think that you did not even take time to give such explanation of the matter as you have given now to the Master before they were called upon to accept your recommendation on this important matter?

A. If they desired information, it was given them. I cannot recall that they asked for it.

Q. You do not recall that they did not ask for it and you do not recall that it was discussed?

A. I do not remember that it was discussed.

Q. Do you remember it was not discussed?

A. I don't remember that it was not discussed.

Q. Now the next order of business was a proposed resolution of necessity which is set out rather lengthy, relating to creosote blocks or southern long leaf pine upon certain streets. That matter was presented to the council by you and the adoption of the resolution moved by you. Do you remember whether there was or was not some discussion over that matter?

A. Very likely not; I don't remember.

Q. Do you remember there was not any discussion?

A. I don't remember there wasn't.

Q. The resolution was of course read?

A. Not in full.

Q. You say that in passing resolutions of necessity that the council did not read or have read those resolutions?

3968 Mr. BRENNAN: That is not a final resolution; that is simply a proposed resolution.

A. This proposed resolution of necessity was simply introduced as a proposed resolution of necessity for the paving of a certain described street with a certain prescribed material; it was not read in full.

Q. Do you remember what part was read?

A. I stated that it was introduced as a resolution of necessity for paving a certain specified street with certain specified material and invariably the date is set for the hearing of the resolution of necessity.

Q. Do you recall whether that was or was not on that occasion discussed by the council or whether it was or was not read in full. Have you a present recollection on the subject?

A. I have not.

Q. The next order of business was a proposed resolution of necessity relating to another matter of some length. Do you remember whether that resolution was or was not read?

A. What number is that?

Q. Roll Call 2988.

A. According to custom it would simply be read as a proposed resolution of necessity covering the streets to be paved, the material to be used and the date set for a final hearing.

Q. Of course that don't quite answer the question.

A. I thought it did.

Q. I asked you whether you have any recollection.

A. My recollection is that was all that was done.

Q. Now following the disposal of that order of business comes No. 2989, which was a proposed resolution of necessity relating to some other matters, and of some length. Do you say of that as you did of the preceding resolution, you think all that was done was to read it in part so as to advise the members of the council of what it was, that is the street it was one and the manner in which it was proposed to pave the street?

A. And the date set for its final hearing.

Q. Was there any discussion as you now remember it with respect to that resolution before it was acted upon?

A. I don't remember that there was any discussion.

Q. And you don't remember there wasn't any discussion?

A. I don't remember that there wasn't.

Q. Then comes the next order of business, No. 2990, another proposed resolution of necessity; would you say of that as you did of the preceding, substantially all that you stated of the preceding resolution?

A. The same.

Q. Then comes the next order of business, Roll Call 2991, another proposed resolution of necessity, and is your answer as to that the same as to the prior resolution?

A. I would say further that all these resolutions show, it was moved by MacVicar to adopt resolution fixing date for consideration of same; that was the customary action after describing the street and the work.

Q. Now comes the next order of business which is a report of the Solicitor upon the bills of the Register & Leader, the Des Moines Daily News and other newspapers, together with the expenses incurred in carrying provisions of the code in furnishing convenient and suitable places for the Board of Registrars at the last general election held on November 1910, presented. Moved by MacVicar that communication be received and filed. Do you recall 3970 what discussion if any was had with regard to that report of the Solicitor?

A. I don't recall any discussion.

Q. Do you know whether it was examined by the members of the council?

A. It had been reported to the Solicitor for examination and is now returned with the report of the Solicitor.

Q. Before taking such action as was taken, do you know whether the members of the council looked it over?

A. They read the report of the Solicitor.

Q. That was read by the clerk?

A. By the clerk.

Q. Then after the reading of the report by the clerk do you recall whether there was any discussion with regard to it?

A. I don't recall there was any discussion.

Q. And you don't recall there wasn't any discussion?

A. I don't recall there wasn't any discussion.

Q. Then follows Roll Call 2993: "Be it Resolved by the City Council of the City of Des Moines: That the City Auditor be directed to issue warrants in favor of the City Treasurer for the following amount on the following funds for the purpose of paying semi annual interest due January 1st, 1911." Then follows the amount set forth. That naturally was not a matter that elicited any discussion.

A. It being reported upon by Mr. Schramm, of the Department of Accounts and Finance, it would naturally not get any discussion.

Q. You do not know whether any members of the council inquired for information in regard to it, more than shown on the face of the report?

A. Very likely not.

Q. Well, then comes the matter of the ordinance under consideration, Roll Call 2994; and then follows Roll Call 2997, "That 3971 it is the sense of this council that the city should acquire the ownership of the Street Railway, whether it be to operate the property itself, lease it to an operating Company, or even to sell it to some other company. And further that we ask the Polk County Representatives in the Senate and House to use every honorable means of securing to cities the right to acquire, construct, own, maintain, operate and lease street railways." Now that action does not appear to have been taken upon any report, but is simply an expression of the sense of the council, as I take it, Mr. MacVicar?

A. It was a resolution proposed by the Mayor and expressed the sense of the council.

Q. I beg your pardon, it is in the form of a resolution. That was introduced by Mayor Hanna?

A. Yes.

Q. And there was some discussion of it before action was taken on so important a matter, I assume?

A. I doubt whether there was any discussion at that meeting. The matter had been before the council for months and it was entirely familiar to the council.

Q. You say it had been before the council, in what manner had it been before the council?

A. The general proposition of the settlement of the street railway difficulty.

Q. How was it brought before the council, in what formal way?

A. In numerous communications from the Street Railway, communications from the Greater Des Moines Committee, petitions, and through the press and by the public.

Q. You perhaps did not quite understand me. I mean to 3972 inquire whether anything in the way of formal action had been attempted by the council, that is, whether any resolution had been introduced, or any motion made or anything to bring the matter in any formal way before the council until this resolution was introduced?

A. As to what, Judge?

Q. The question of acquiring the ownership of the Street Railway.

A. I do not recall any formal resolutions before the council on the manner or method of acquiring city ownership of the street railway.

Q. Then this was the first time that the matter of taking any formal action by the council was up?

A. I wouldn't say that was true; there may have been many other resolutions.

Q. Have you any recollection of any other formal action taken by the council?

A. I have no recollection.

Q. Of course this was a matter of very grave importance and you recognized that and so did the council.

A. It was ultimately of some importance, but no great importance.

Q. Was the matter not regarded by you or any other members of the council as a matter of more than some importance?

A. This was simply a request to our Polk Representatives to use every honorable means to secure to the city the right to acquire, own, operate, etc.

Q. Doesn't the resolution go much further than that and put the council on record as being in favor of acquiring the ownership of the street railway?

A. Yes.

Q. That certainly was a matter of some importance?

3973 A. Not immediate importance.

Q. Would you say from recollection that so important a matter as that was not at that time, when it was first formally before the council given some consideration and elicited some discussion?

A. It had received a great deal of consideration from all the members of the council, but as I recall, at this meeting it did not elicit any discussion.

Q. You wish to stand by that answer that it is your recollection now that matter did not elicit a good deal of discussion at the time that resolution was presented.

A. I am quite sure it did not at that time.

Q. Are you also sure it did not elicit any discussion at that time?

A. My recollection is it did not at that time elicit any discussion.

Q. The next order of business taken up on that day was Roll Call
2998. "Be it Resolved by the City Council of the City of Des Moines: That Mr. Howard J. Clark be requested to file his bill for legal services rendered the city in its suit against the Des Moines City Railway Company at Adel." That was a matter introduced by Mr. Schramm and elicited some discussion?

A. I would think not.

Q. Do you remember that it did not?

A. My recollection is it did not.

Q. Would you say now that you are clear in your recollection that that item of business was not discussed at all by the City Council before adopting that resolution?

A. I am more clear on that than most any other question of that kind.

Q. As to that you are quite clear it at that time did not elicit any discussion?

A. I am quite sure it didn't.

Q. The final order of business on that occasion was No.
3974 2999: "Report of City Solicitor relative to taking tax deed on the North sixty feet of the South 245 feet of the West 303 feet of the Southwest $\frac{1}{4}$ of Section 1, Township 78, Range 25, all situated in Polk County, Iowa, presented, to which was attached

the following resolution," then follows the resolution. That report was read of course?

A. It was read.

Q. And was given some consideration?

A. It elicited no discussion.

Q. Is your recollection clear on that subject?

A. Well, I couldn't say that from indistinct recollection, but in its nature it would not be discussed.

Q. In any event the report of the City Solicitor was read and considered by the council, audibly or otherwise, and the resolution was read and action taken upon it as shown by the journal?

A. Undoubtedly so.

Q. Now we find then, do we not, that at this session of the council, on the 27th of December, aside from the matter of the consideration of the ordinance in controversy, there were some 17 or 18 items of public concern, all more or less important, that were disposed of at that session, lasting a little over two hours?

A. Evidently.

Mr. BRENNAN: May the record show at this point that you have leisurely reviewed these proceedings in about one hour?

Judge CARR: You don't mean to say that to be witty, do you?

Mr. BRENNAN: Just a good-natured way of calling time.

Q. Now, Mr. MacVicar, when this ordinance in question was introduced, it being the first time that it was before the council, it was read, was it not?

A. You are speaking of the ordinance in controversy?

3975 Q. The gas regulation ordinance?

A. It was read.

Q. Was it read in part or full?

A. Read in full.

Q. Then the report from the legal department was also read and read in full, was it not?

A. It was.

Q. Then you made an oral report of some length to the council, as we learned from your testimony on Saturday?

A. I don't recall whether I made a lengthy oral report. My recollection is there was this report that was here in writing and the discussion.

Q. Then after that the council took the matter up for consideration and it was discussed at some length, wasn't it?

A. I believe that it was discussed to some extent.

Q. Now as we have seen, the ordinance involved, the subject involved the ascertainment of the value, the present value of the property, the gross receipts which the company would receive at 90 cents, the expenditures of the company in the way of operating expenses, and tax, and the making of a proper allowance for future depreciation, and the ascertainment of what was a fair return, and that was all involved in the subject under consideration, wasn't it?

A. That was involved.

Q. Now, then, if I understand you, in this session, lasting a little

over two hours, at which some 17 or 18 other matters of more or less public importance were also acted upon, the council as a council having before it for the first time this question, disposed of this all at that session and passed the ordinance?

A. I think that is not strictly correct.

3976 Q. What part is not correct?

A. It was not before it for the first time.

Q. This was the first time the ordinance was before the council?

A. The first time the ordinance was before the council.

Q. What had before been before the council was a resolution appointing you and the Legal Department to investigate and make a report?

A. That is right.

Q. Of course the report had not been made until this meeting at the time this ordinance was presented so it is strictly speaking true that the matter of this ordinance had never been before the council until this meeting?

A. The ordinance had not been before the council.

Q. And that was the conception of the members of the council as to their duty under the admonition of the City Solicitor in his report that they should fully and fairly consider the subject?

A. They assumed that that had been done according to their direction by the head of the department where it properly belonged and the City Solicitor.

Q. The other members of the council assumed that you had done that?

A. Yes.

Q. And that is their conception of their instructions, that is, their interpretation of their instruction from the City Solicitor, speaking not to you, but to the council, that it is the duty of the council to fully and fairly investigate and prescribe a rate that will be compensatory and just to both the owner and the public; is that so?

A. That was the suggestion of the attorneys and the council undoubtedly believed that had been done.

Q. Now is it not true, Mr. MacVicar, that some member or
3977 members of the council were opposed to take this hasty action and protested against taking action at that time?

A. I do not remember that there was a protest. I remember that the Mayor asked about the reasonableness of the rate, whether that had been gone into and he was assured that it had, and I am quite sure there was no protest, because there was a unanimous vote upon the ordinance.

Q. Mayor Hanna addressed, I assume, to you the inquiry as to the reasonableness of the rate having been fully gone into?

A. A question along that line.

Q. You answered that it had?

A. Yes.

Q. All of which indicated that Mayor Hanna had not himself gone into the question of the reasonableness of the rate, but wanted to know whether you had or not?

A. I would not say that.

Q. Now is it not true that Mayor Hanna said in substance, I am not satisfied that that is a fair rate, I think we ought to take time to consider this; I am opposed to this hasty action; isn't it true that in substance he said that at that meeting and rather urged, or did urge that action be not taken in this hasty manner upon so important a subject?

A. I do not recall that any such protest was presented by the Mayor.

Q. Now in your testimony, Mr. MacVicar, as shown by the transcript, the thought occurs to me, in view of Mr. Brennan's apparent desire for a joke—I will ask you this further question: At that particular meeting of the council was there any time spent by the members of the council exchanging personalities and compliments concerning which we read so much in the newspapers?

A. The council was giving an intelligent investigation to 3978 the matters before it, and sometimes there is a difference of opinion, and sometimes newspapers call it a scrap.

Q. The point is, do you remember whether there was any time taken up at that meeting?

A. There was time taken up with what I would call intelligent discussion of the matter before the council.

Q. You were asked by Mr. Brennan this question, coming down now to the passing of the ordinance in controversy: I believe you were instructed by the council to make some investigation for it with respect to a proposed ordinance to become effective after January 1st, 1911, and you answered, yes. Then the next question was: About when were you assigned that duty by the council, and you answered: In October of last year. I call your attention to roll call 2449 as appears in the printed journal of the city council on page 958, and will ask you if that is the authorization to which you refer in the answer which you gave Mr. Brennan?

A. Yes, I think that is what I referred to.

Q. Now that was a resolution as appears from the record which you introduced and the adoption of which you moved?

A. Yes.

Q. And that was on October 21?

A. That is the date.

Q. Mr. Brennan asked you this question on page 3920: "Now, Mr. MacVicar, in arriving at 90 cents as a reasonable price for gas in the city of Des Moines as represented in your report through this ordinance, upon what valuation did you estimate that 90 cents would earn a reasonable return?" To which you answered: "Estimated on the best information that I had on that subject, which was the showing of investment from time to time in the suits in court, and the showing made by Mr. Haines in his letter to me advising 3979 me as to the investment. Q. And the letter to which you refer now, under what date is that letter? A. It is under date November 22, 1910. Q. And what was the valuation upon which you estimated as shown in the letter under date of November 22, 1910." Your answer was: "The amount stated there was \$1,-739,094." Then the question was: "Now the letter to which you

have called attention is the same letter which has been introduced in evidence in this case as Complainant's Exhibit 7," to which you answered: "I think this was introduced, and another letter of date November 26, 1910, referring again to the same figures." Now you have stated apparently, that when inquired of you by Mr. Brennan as to what valuation was stated in the letter, that the amount stated was \$1,739,094. Now will you please refer to that letter and give us the statement which you say was a statement of the value of the plant as being \$1,739,094.

A. The paragraph reads as follows: "This leaves \$139,191.52 as the average annual amount received by the Gas Company for interest and profits, which amount to 8% on \$1,739,094."

Mr. BRENNAN: Are you reading from the letter of November 26th?

A. That was November 22nd.

Q. The part you read does not seem to be quite in accord with my copy?

A. It is of November 22nd.

Q. The first letter which you received.

A. Yes.

Q. The part that you have read is the part in italics near the center of the page: "This leaves \$139,191.52 as the average annual net amount received by the Gas Company for interest and 3980 profits, which amount to 8% on \$1,739,094"?

A. Yes.

Q. That is the statement which you say was a statement in Mr. Haines' letter of his judgment as to the value of the property?

A. I so understood it.

Q. And at the time you acted and passed upon this ordinance you so understood Mr. Haines' statement and acted upon it accordingly, is that correct?

A. This amount coincided with the other information which we compiled closely and which was about that amount that we had in mind as the investment of the plant.

Q. That of course does not answer my question, Mr. MacVicar.

(Last question repeated.)

A. That was not the only basis of action.

Q. But at the time you passed upon this ordinance, introduced this ordinance and voted for its adoption, you say to the court that you then understood Mr. Haines' statement as you have now interpreted it and that you understood Mr. Haines as saying in that letter that the value of this property was \$1,739,094.

A. That is true.

Q. Now I assumed you read this entire letter?

A. I read it all.

Q. Then you were perfectly aware that Mr. Haines made that statement simply as showing the amount of money, the net income which he said the Company had been receiving after deducting an allowance for depreciation, would pay a return of 8%

A. I didn't so understand it.

Q. And yet the very clause, the clause of the paragraph which precedes this says: "Deducting from the average annual gross revenue, for the three year period, the average annual expenditure
3981 for operating expenses and taxes, there remains an average annual net earning for the period of \$188,369.65. From this sum there must be deducted for depreciation, the sum of \$49,178.13, which sum is ascertained by taking ten per cent of the average annual gross revenue from the sale of gas. That this is no more than a reasonable allowance for depreciation will hereafter appear." Then follows the statement you read. You understood from that, Mr. Haines was simply showing what valuation or upon what sum the net income the Company was receiving after deducting for depreciation, would pay eight per cent?

A. I didn't so understand it.

Q. You say again you understood it as being an expression from Mr. Haines, his judgment as to the value of his plant?

A. I understood it so.

Q. Right following this statement is this statement: "However, I am clearly of the opinion that the present value of the Company's property and assets is largely in excess of \$1,739,894." That statement is there?

A. I see it is there.

Q. You saw it there at the time?

A. I was not so impressed with that paragraph as with the other paragraph.

Q. But you read it and you knew from that paragraph that Mr. Haines was not stating that the value of this property was one million seven hundred odd thousand?

A. I did not so understand it.

Q. You did not understand when he said, however, I am clearly of the opinion that the present value of the Company's property and assets is largely in excess of that amount, that he did not then
3982 say that that was not his judgment of the value of the property at all, but that it was largely in excess of that?

A. I did not so understand it. I accepted that as an incidental remark in regard to the valuation placed on the plant.

Q. You say there was another letter in which Mr. Haines stated the value of the plant was \$1,739,894, and that you found it in the letter of November 26th which you say was a statement of Mr. Haines that the value of the property was \$1,739,894?

A. I find a statement referring again to that amount in connection with the value of the property.

Q. Will you read into the record what you find in that letter which led you to believe as you say that Mr. Haines was asserting that the value of the property was \$1,739,000 in round numbers.

A. I simply say this again refers to that same amount in connection with the value of the property.

Q. I am asking you if you will kindly read into the record the portion of the letter which you understand to be a statement from

Mr. Haines that the \$1,700,000 in round numbers was the value of the property?

A. I make no such statement in connection with this letter.

Q. Then you do not want to be understood as saying that this letter of November 26 contains any statement from Mr. Haines to the effect that in his judgment the value of the property was \$1,739,000?

A. It again refers to that same amount in connection with the valuation placed on the property.

Q. Does it refer to the valuation placed upon the property?

A. I will read it: "In reply to your published letter of yesterday, copy of which I have not yet received, I beg to call your attention to my letter of the 22nd inst. to you in which I submitted figures showing the gross revenue derived by this Company from the sale of gas together with figures showing the net revenue after deducting operating expenses, taxes and depreciation, and also computations showing that this amount of net revenue would yield but eight per cent upon \$1,739,894. I expressed the opinion that the present value of the plant and assets of the Company was largely in excess of this sum."

Q. Now what you have read now is what you find in that letter which caused you to say in answer to the inquiry put to you by Mr. Brennan in effect that Mr. Haines had stated in those two letters that the value of the property was in his judgment \$1,700,000 in round numbers?

A. I was impressed by that as being the valuation placed upon the plant by Mr. Haines.

Q. Well, I suppose further comment on that is unnecessary, so we will leave that and go to another matter. You stated on yesterday Mr. MacVicar, as follows: Though shortly after the passage of the ordinance Mr. Haines was writing letters commenting on the work of the council and action of the council, and I asked Mr. Schramm and the auditor to ask permission to look over the books of the Company, which they did and were refused. Now you say you asked Mr. Schramm and the auditor, meaning the City Auditor, I assume?

A. Yes.

Q. To ask permission to look over the books—who was the auditor at that time?

A. John Hawk.

Q. And Mr. Schramm is of course a member of the council?

A. Yes.

3984 Q. Now, you say Mr. Schramm and Mr. Hawk, each of them asked permission to look over the books after the ordinance was passed?

A. My recollection is they were together when we discussed it.

Q. That is, they were together when you discussed the matter?

A. When I suggested they do this. Mr. Schramm is the head of the department and Mr. Hawk under him.

Q. That is the department of accounts and finance?

- A. Yes, it was either one or both I talked with concerning it.
- Q. Did they go together and ask permission to see the books?
- A. Yes.
- Q. How long was that after the passage of the ordinance?
- A. I cannot tell you now; shortly after, is my recollection.
- Q. That was after the matter had passed out of your hands as a committee and the council had taken action?
- A. Not necessarily passed out of my hands.
- Q. What do you mean by that?
- A. The matter has never passed out of my hands.
- Q. I said as a committee?
- A. As a committee it never passed out of my hands.
- Q. After you had reported and after you were appointed by the council to report an ordinance and after you had made that report and the council had adopted your report and adopted the ordinance, you say the matter was still in your hands as a committee?
- A. The matter was assigned by ordinance to my department, yes.
- Q. Now following the passage of the ordinance Mr. Haines wrote a letter, not to you, but to the council, did he not?
- A. I notice a letter here.
- Q. You made some reference to it Saturday, didn't you?
- A. I don't remember whether I did or not.
- Q. Now, is it not true that in the letter which I assumed
- 3985 Mr. Haines assumed after the council had taken action should be addressed to the council and not to you, as he probably conceived your duty as a committee had been fully discharged. In this letter addressed to the council after the ordinance was passed, he was still appealing to the council to come and examine the books, wasn't he?
- A. I don't remember.
- Q. Well, let us see. The letter written to the council, that is To the Honorable Mayor and City Council of the City of Des Moines, is dated on the 28th of December, is it not, and is the last or next to the last letter found in these copies contained in Exhibit 44. Now will you go to the latter part of that letter and see if you do not find this language: "I again appeal to you to complete the investigation as to the value of the property and to verify the statement of earnings submitted before taking such final action as appears to suggest no recourse but a resort to the courts."
- A. That is in the letter as published here.
- Q. Now then it seems that after the passage of the ordinance Mr. Haines was still appealing to the council to make an investigation of the books?
- A. Two days after.
- Q. One day in reality?
- A. One day after.
- Q. Now you have stated when at your suggestion Mr. Schramm or Mr. Hawk was to ask for an opportunity to see the books, that they were refused?
- A. Yes.

Q. You of course have no personal knowledge of that except as it might have been reported back to you?

3986 A. That is true.

Q. You were of course not present when they or either of them called on Mr. Haines with regard to the matter, if they did so call?

A. I was not present.

Q. You have no personal knowledge of what took place except what was reported to you?

A. Only what they reported to me.

Q. Who was it made the report to you?

A. Mr. Hawk, as I recall, and Mr. Schramm with him.

Q. At the time the report was made—

A. They told me they had been refused permission to look at the books.

Q. Did Mr. Schramm and Mr. Hawk come together and tell you they had been refused permission to see the books?

A. One or both.

Q. I would like to have you be definite?

A. I could not be definite. I have numerous conversations on the subject and remember their reporting either one or both that they had applied and had been refused permission.

Q. Then as I understand it your recollection is not accurate as to whether they reported to you they had both gone to Mr. Haines or only one of them had gone to Mr. Haines?

A. That is true.

Q. Now, to refresh your recollection, isn't it true that it was Mr. Hawk who went to Mr. Haines and had an interview with him and that he or Schramm reported to you that Mr. Hawk had seen Mr. Haines?

A. I can't say whether it was Mr. Schramm or Mr. Hawk or both. My recollection is they were together when the report was made to me.

3987 Q. Let me inquire, you say they reported to you they had been refused an opportunity to see the books, although Mr. Haines after the passage of the ordinance in the letter which was addressed to you had again appealed to the council to examine his books, it was reported to you he had refused—let me ask you now if it wasn't this: that Mr. Hawk went to Mr. Haines and told him he would like to look over the books, and Mr. Haines asked him if he came with any authorization from the council, and that he told Mr. Haines he did not, and that Mr. Haines then said, if you will bring me any authorization from the council authorizing you or requesting that you be allowed to examine these books, you shall have an opportunity to do so; isn't that true?

A. I am quite sure that is not true; it is not what he reported, because he could have had the authority of the council had he desired it. I am quite sure that he did not so report.

Q. All right. It struck you as being a little peculiar when Mr. Haines was appealing to the council after the ordinance was passed, even, to come and examine the books and reconsider the situation,

that when a man went from the council with authority from the council to examine the books that Mr. Haines would refuse it?

A. It didn't strike me peculiar. It was a common custom of the public service corporations to do that very thing; this was the second occurrence of that kind within a few months.

Q. That was what you were looking for; you sent them to call his bluff; you go up there and ask for permission to examine the books and he will turn you down?

A. That was not true.

Q. That was what you was expecting?

3988 A. It is a common occurrence for public service corporations of this town to proffer the examination of the books and then refuse. This same thing occurred within a very few months with another corporation whose rates were in question.

Q. You do not include in that statement the Des Moines Gas Company?

A. This was the first instance we attempted to investigate.

Q. You don't mean to include in that statement the Des Moines Gas Company; if not, I will not pursue the inquiry further?

A. That is the first time.

Q. Whatever your experience may have been with other public service corporations, I assume the Master is not interested in; but you are not to be understood as saying that at any prior time Mr. Haines had proffered or offered an examination of the books and then had refused it?

A. That is correct. You simply asked if I was surprised and you thought it peculiar and I told you why I was not surprised.

Q. You did not send Mr. Hawk or Mr. Schramm up there expecting Mr. Haines would refuse them?

A. I hoped Mr. Haines would not refuse; we wished to get such information as we could relative to what the books would show.

Q. Had you any reason to think that he would refuse?

A. That had not occurred to me at the time.

Q. You was desirous after the ordinance had passed to get this information and to comply with Mr. Haines' request to come and examine the books?

A. We desired such information as we could get.

Q. Now this was after this present suit was begun that you sent Mr. Hawk or Mr. Schramm up there?

A. It was immediately following the advisement we had of your beginning the suit and that you would not accept the ordinance as presented; we had thought and hoped you would accept it; learning you didn't, we desired to get such information as we could.

Q. The fact is, that you did this after the suit had begun?

A. After you enjoined us.

Q. After this case was begun?

A. I suppose this is the same case.

Q. Do you remember how long after?

A. Shortly after; I can't say.

Q. Didn't you do that on the suggestion and advice of the City Solicitor, that very thing?

A. No I think not.

Q. Are you sure you did not?

A. I am quite sure that was not the suggestion of the City Solicitor.

Q. In your testimony on Saturday you said: "I had in a general way studied into the conditions in Massachusetts and found that Boston had recently voluntarily reduced its rate from 90 to 80 cents, for the reason that it desired to increase its dividend earnings, being operated under a restrictive dividend earning which permitted it to earn increased dividends as the price of gas was reduced." From what source, Mr. MacVicar, may I inquire, did you get the information which you then had?

A. From the report of the Gas and Electric Commission of Massachusetts, as I recall.

Q. And for what year was the report?

A. I couldn't say as to that; the report that I refer to now contained the statute, or regulation showing under what conditions they might increase their dividend earnings and fixing the rate at 90 cents, my information as to the reduction may have been from that source or from some other source. I am sure it was 3990 authentic.

Q. Have you the report to which you referred at hand, that is, is it available?

A. I think we have quite complete reports in our City Library of the Gas and Electric Commission. The reduction of the rate from 90 to 80 may not have been secured from that report.

Q. You would say then from the report of the Massachusetts Commission, I take it?

A. I was referring to the report of the Massachusetts Gas and Electric Commission.

Q. Now, from that report as found in the City Library, you now remember that you got the information as to the law, at least under which action was taken, but whether you got your information with reference to the action taken in the reduction from 90 to 80, you are not sure from what source you got it?

A. Yes, I am sure as to that.

Q. To get a better understanding of that situation, I wish you would tell the Master what that regulatory provision was as you have it in mind?

A. As I recall, the legislature of Massachusetts enacted a law fixing a rate for gas in Boston at 90 cents with the further provisions that dividend earnings should be restricted to 7% and that upon the reduction of the rate for gas their dividend earnings might increase at a certain pro rata.

Q. Then if I understand you correctly, your information was, the legislature of Massachusetts had passed an enactment which had been accepted by the Gas Company of Boston, fixing the price at which gas could be sold at 90 cents and then having a provi-

sion restricting the amount of dividends that could be distributed while operating under that rate?

3991 A. That is my recollection.

Q. What was the amount of the dividend that could be distributed to stockholders under the 90 cent rate?

A. As I recall, it was 7%.

Q. Under the 90 cent rate?

A. Yes.

Q. And then it had additional features as I understand you, by which if the company increased above 90 cents, increased the price, it was to have the same effect upon the dividend which the company would distribute to its stockholders?

A. I do not no- recall it.

Q. Your understanding is there was no ascending scale of prices, provided for in the law?

A. There may have been; I cannot recall.

Q. But you have a recollection there was a descending scale provided for?

A. That is my recollection.

Q. Just what was that, do you remember?

A. I cannot remember just the percentage of increase, but as I recall when the rate was reduced from 90 to 80, the dividend earning advanced from 7% to 9%.

Q. Now, to refresh your recollection, didn't you learn that law provided whenever the company saw fit to reduce the price of gas five cents per thousand cubic feet, that they then could distribute to their stockholders an additional cent on each dollar of the value of the stock held by the stockholder; that is to say, when the price was reduced from 90 to 85 cents, they could distribute an 8% dividend, and if they saw fit to reduce the price of gas five cents more per thousand cubic feet they could distribute another cent on

3992 the dollar to the stockholder, so that when the price was reduced from 90 to 80, the company under the law were at liberty to distribute to their stockholders 90 per cent dividend instead of 7%?

A. The latter part of your question coincides with my recollection.

Q. Did you not learn in your investigation of the Boston situation that what the Gas Company did was to reduce the price of gas from 90 to 80 cents in order that they might distribute from a surplus which had accumulated during the past years, that they might distribute a surplus or part of a surplus which had accumulated during the years prior to that period to the stockholders, instead of keeping it as an undistributed surplus?

A. I recall there was a provision for such distribution of accumulation over and above a per cent allowance; I was not informed as to what the accumulations were at that time.

Q. Then so far as you know or learned that may be the fact as I have stated it?

A. I would think hardly that, for the reason that the rate of 80 cents still continues.

Q. I was not asking you now what you thought about it, but what you learned about it?

A. I didn't learn that.

Q. You didn't learn to the contrary, did you?

A. No. I did not learn specifically on that.

Q. In your testimony on Saturday, Mr. MacVicar, you referred to talks with officials of the company with respect to increased earnings under the ordinance which was adopted in 1896. Now that talk that you had was with some officer or officers of the Capital City Gas Light Company, was it not?

A. Was that the name of the company at that time?

Q. Yes.

3993 A. Yes.

Q. It was not with any officer of the Des Moines Gas Company, the complainant in this case?

A. Why I believe he is still an officer of the company.

Q. The talk was not had with an officer of the Des Moines Gas Company after the Des Moines Gas Company was organized in 1906?

A. It could not well have been when the conversation occurred in 1896 or '97.

Q. It was long prior to the organization of the Des Moines Gas Company, which was organized in 1906?

A. Yes.

Complainant moves to strike out the statement of the witness as to the talks referred to for the reason that it now appears such talks were long prior to the organization of the complainant company and therefore it was not with any officer of the complainant company and hence is in no wise binding upon the complainant company.

Q. I had gone into this, Mr. MacVicar, from the fact that the transcript of your evidence shows that you say I had observed directly the results in Des Moines in the decrease of the cost of gas here in 1906.

A. I think that was corrected afterwards to be in 1896 or 1897.

Q. Now, Mr. MacVicar, you stated in answer to a question put to you by Brother Brennan fully and in various forms your large acquaintance with and activity in municipal affairs for a good many years, and I would like to inquire when it was that you first became interested in and active in municipal affairs?

A. In 1888, I think.

Q. At that time did you hold any official position in any municipality?

A. Yes; I held the office of town clerk of the incorporated
3994 town of North Des Moines.

Q. That was a suburb at that time of Des Moines, which has since been incorporated into a part of the City of Des Moines?

A. It has.

Q. How long did you continue to hold the office of town clerk of the incorporated town of North Des Moines?

A. A little less than a year.

Q. When was the municipality of North Des Moines incorporated into the municipality of the city of Des Moines?

A. In 1890 or 1891, I believe.

Q. So you had retired from office before the town ceased to exist?

A. I retired from that office under fortunate circumstances, but was afterwards elected to another office of the same town.

Q. To what office was you elected and when?

A. To the office of Mayor the following year.

Q. The office of Mayor of North Des Moines?

A. Yes.

Q. How long did you hold that office?

A. I held that to the end of the term, one year.

Q. That was about the time the town ceased to exist?

A. No, the year following.

Q. During the time you were town clerk of North Des Moines, I gather from your statement, you were interested in and somewhat active in municipal affairs?

A. Began to be interested in municipal affairs.

Q. And active?

A. We had an active session for a portion of the year.

Q. It is true when you are interested in matters, you are usually active—built that way?

A. Yes, by reputation.

3995 Q. During the interim in which you were not in office in North Des Moines, did you continue your interest and activities in municipal affairs?

A. Yes, to some extent.

Q. And after you became Mayor of North Des Moines, you of course fully revived your interest in municipal affairs and was active in municipal affairs?

A. I continued an interest in municipal affairs.

Q. Also active?

A. More or less active.

Q. After you had ceased to be Mayor of North Des Moines, from that time on how long did you remain out of municipal office?

A. I was elected to the office of Mayor of Des Moines in 1896.

Q. Prior to being elected to the office of Mayor, had not you been on the council?

A. No, I never was until the present time.

Q. Then prior to the time you ceased to be Mayor of North Des Moines until you was elected Mayor of Des Moines you had not held any municipal office, I take it?

A. No.

Q. During that period you were out of office, Mr. MacVicar, and I inquire whether you still kept up your interest in municipal affairs?

A. More or less?

Q. I inquire whether you also kept up your activities in municipal affairs, well politics and municipal affairs generally?

A. I was very little in politics, that is directly in politics, but was interested in certain phases of the conduct of our municipality.

3996 Q. You were living in Des Moines during that period?
A. I was living in Des Moines after annexation.

Q. When was the annexation?

A. In 1891.

Q. You were living in Des Moines five years prior to the time you were elected Mayor?

A. Yes.

Q. Did I understand you to say you did not take much interest in city politics during that time?

A. A portion of the time I was somewhat interested, not very deeply involved.

Q. No, but the fact remains you have always, haven't you, Mr. MacVicar, taken an interest and have been active in city politics ever since you became a resident of the city of Des Moines?

A. Pretty much all the time.

Q. Now in the interim between the time you was Mayor of North Des Moines and the time you became Mayor of Des Moines, was you a member of any league or organization which had to do with municipal affairs in any way?

A. I was.

Q. What league?

A. I was appointed at a mass meeting called in the old court house for the purpose of regulating water rates and bringing about city ownership of the Water Works plant. I was made chairman of the movement with authority to appoint a committee to conduct in behalf of the citizens this movement.

Q. When was that, Mr. MacVicar?

A. That was in 1893, as I recall it.

Q. Do you recall by whom that meeting was called?

Objected to as irrelevant, immaterial and not proper cross examination.

3997 The MASTER: It seems to me you are getting away out.

A. I think John A. Cleary, John J. Hamilton and Judge Cole were three prominent people connected with it.

Q. You were instrumental in calling the meeting?

A. I do not recall that I was.

The MASTER: Pretty nearly everybody in the state knows that John MacVicar is interested in municipal affairs.

Judge CARR: It is not my object to thresh out dead or living issues in Des Moines.

Mr. BRENNAN: We admit that he has been active in municipal affairs.

Q. Now, following that meeting, Mr. MacVicar, you were quite active were you not, in promoting the object of the meeting?

A. Together with the committee appointed, I was.

Q. You started a campaign of public ownership of public utilities, or at least water works?

A. First regulation and then ownership.

Q. Did the campaign as you worked it forward embrace ownership in other public utilities, or regulation of them?

A. It did not.

Q. After you became Mayor in 1896, how long did you continue in office as Mayor?

A. Four years.

Q. That meant an elected and a reelection?

A. Yes.

Q. Now, of course, during the time you were Mayor you were active in municipal affairs and took an interest in municipal affairs.

A. Naturally.

Q. And your office terminated what year?

3998 A. In 1900.

Q. How long were you then out of office?

A. Seven or eight years; eight years.

Q. Until elected to your present position at the first election held under the present plan of government in Des Moines?

A. Yes.

Q. That embraced a period of about eight years?

A. Eight years.

Q. During that period did you continue your interest in and activities concerning municipal affairs?

A. To a certain extent.

Q. Well, can you tell us to what extent?

A. Well, as a citizen while I was in Des Moines; I was absent from Des Moines the greater portion or one half of that period, but took considerable interest in municipal affairs and politics during that period.

Q. You was in politics part of the time?

A. Around the outer edges with yourself, Judge.

Q. You was a candidate from time to time?

Objected to on part of defendants as irrelevant and immaterial.

Q. Just in what way—I don't mean politics now, Mr. MacVicar, but in what way did you during that period study into municipal affairs; you stated in answer to a question put to you by counsel that you had become very familiar with municipal affairs, been a student of the subject for many years; I am simply trying to get if I can just what your course of study was and what your experience was during that period; and I inquire again what organization or leagues were you a member of if any, that had to do with municipal affairs?

3999 A. I was a member of or connected with the Des Moines Civic League for several years during that period and I was Secretary, and am Secretary of the League of American Municipalities.

Q. That is not a local organization?

A. That is a national organization.

Q. But the Des Moines Civic League is a local organization?

A. It was.

Q. You say it was—does it now exist?

A. I think it does not now exist.

Q. Now when was that League organized?

A. Oh, I would say about 1904, just to take a long shot at it; along about there.

Q. It was at least that long ago?

A. It might have been a year longer or shorter, along about that time.

Q. Now, did that League have to do with the study into municipal affairs, or what was its business and purpose?

A. Its purpose was to inquire into and keep tab on local affairs generally, and municipal, school and county.

Q. You was Secretary of the League, as I understand it?

A. No, I was Assistant Secretary.

Q. Who was the Secretary?

A. As I recall it, John J. Hamilton.

Q. Who was president?

A. Robert Fullerton—I. E. Tone was President, and Robert Fullerton was chairman of the executive committee.

Q. Did that League make any study into municipal affairs generally, or was it dealing simply in some local situation?

A. Just the conduct of local affairs.

Q. Well, was you during that time that you were out of office a member of any other league or organization having to do with 4000 municipal affairs other than what you have already spoken of in connection with the national association.

A. I do not recall any other.

Q. Now, during that period, how much of your time was you devoting to municipal affairs?

A. You are speaking of the interim between my terms of office?

Q. Yes.

A. I was out of the city largely for three years at least, and so was not in local affairs during that time; perhaps the balance of the five years I was quite actively engaged in local affairs.

Q. Back in 1892-3-4 and '5 there was a controversy which we have learned here coming on between the city and the Capital City Gas Light Company with respect to rates and regulation, was there not?

A. I believe there was.

Q. To what extent were you active in that matter?

Objected to as irrelevant and immaterial to any issue in this case and not proper cross examination.

A. I was not deeply interested in the movement at its inception nor was I deeply interested during the trial of the cases in court; just casually as any other citation would be.

Q. Well you say not deeply, how active was you in the matter, if you was active?

A. I was not.

Q. The League to which you have referred as the Des Moines Civic League was active in instituting litigation against the Des Moines Street Railway Company for the purpose of determining the validity or invalidity of its franchise, was it not?

The MASTER: Judge, it does seem to me you are wandering 4001 away out; I think we will have to draw the line pretty soon;

he has stated he has taken an active part in a general way and that is enough, I think; you need not go into details.

A. That League I believe was instrumental in bringing that suit.

Q. Wasn't it actually brought in the name of Robert Fullerton as one of the officers of the League?

Objected to as not proper cross examination and immaterial.

A. I could only say from recollection that is my understanding.

Q. And that League employed counsel for the purpose of prosecuting the case, did it not?

Same objection last above made.

Q. And at their own expense?

A. I was not a member of the League, but I believe that is true.

Q. I understood you to say you was a member?

A. I stated I was connected with it, employed by it.

Q. You was assistant secretary?

A. I was not a member of the league, however.

Q. That was the litigation which was instituted and which has not yet terminated and which is now unappealed by the city, who afterwards came into it, from Judge Applegate's decision to the Supreme Court?

A. I think that is the case referred to.

Q. Now, later a controversy arose between the city of Des Moines and the Des Moines Water Company and you were quite active, were you not, in precipitating that controversy and quite active in the conduct of looking after the case during its progress?

A. Which one are you speaking of?

Q. I am speaking of the case which was instituted and 4002 which has recently been decided by Judge McPherson?

A. That is the second case.

The defendants object to this testimony for all the reasons urged and for the further reason that counsel for defendants have repeatedly stated that it may be admitted upon the record that Mr. MacVicar has been more or less active for a number of years and been a member of leagues which have for their purpose the advancement of municipal government.

Judge CARR: I do not like your qualification more or less.

Mr. BRENNAN: Strike out less and make it more.

Q. There had been a prior suit, had there not, involving somewhat a similar controversy?

A. Fifteen or sixteen years before there had.

Q. In that case you was quite prominent?

A. I was.

At this time an adjournment was taken until 1:30 P. M.

4003

1:30 P. M., MONDAY, *September 25, 1911.*

JOHN MACVICAR being continued on cross examination by Hon. George H. Carr, testified as follows:

Q. Just one or two more questions about your activities in municipal affairs and then I will be through with that subject. The matter of lighting streets and making contracts for that service is within your jurisdiction or comes in your department?

A. It is assigned to my department by ordinance.

Q. A contract has been entered into between the city and the Welsbach street Lighting Co., has there not with respect to lighting the streets?

A. There is such a contract in existence.

Q. I will ask you whether you were not active in precipitation and in conducting litigation that grew out of the attempt on the part of the city to repudiate that contract or to deny liability under the contract?

Objected to as incompetent, irrelevant, immaterial and not the best evidence of what the city claims in that suit there being no question of repudiation involved so far as the city is concerned, and not cross examination.

A. Had something to do with raising the question of the validity of the contract, but nothing to do with conducting the legal procedure.

Q. I did not assume of course that you acted as attorney in the matter. That is the case that was tried in this court and determined adversely to the city by Judge McPherson and recently affirmed by the Court of Appeals, is it not?

Same objection.

4004

A. I believe it was adversely determined.

Q. On Saturday Mr. MacVicar, you stated as follows in answer to a question put to you by Mr. Brennan, I knew in Lynn, Massachusetts, a city only slightly smaller than Des Moines, a slightly larger production and a much smaller production per mile or mains made, was selling gas at 80 cents and the 1st of January it was reduced to 75. A voluntary reduction I believe. I inquire what is the basis for the statement or the source of your information upon which the statement is based that in Lynn a much smaller production per miles of mains laid than in Des Moines.

A. I would like to call attention to the fact that as you read it is not as I gave it, it states there a city slightly smaller, I said or intended to say the city was slightly larger than the city of Des Moines.

Q. As a matter of fact there is no great difference in the population?

A. Slightly larger I believe.

Q. I was not calling attention to that but to the statement that much smaller production per mile of main laid in Lynn than in Des Moines. I was asking you for the source of your information on that subject.

A. As I recall by reference to Brown's Gas Directory, that the Lynn plant serves four or five communities, four or five cities, and as I recall a materially larger mileage of mains with only a slightly larger consumption.

Q. The answer than is that whatever information you had upon the subject you got from this publication that you have spoken of, Brown's Gas Directory?

A. Brown's Gas Directory which I secured from the library of Mr. Haines.

4005 Q. You are now giving your recollection on that?

A. Yes.

Q. As to what you found in that book?

A. Yes.

Q. Which you secured from the library or Mr. Haines?

A. Yes.

Q. For what year was the statement which you say you got out of that book made?

A. The book referred to was the 1910 directory.

Q. Was it the statistics for 1910 or statistics for 1909?

A. Well I rather recall the title on the back of the book being 1910 whether it referred to the statistics during 1909 or 1910, I could not tell.

Q. You were making this inquiry as I gather from your evidence during the latter part of the year 1910 were you not?

A. Yes.

Q. And it is not likely you would have found their statistics for the year 1910 is it, that is prior to the close of 1910?

A. Not if it included the calander year, likely not, that is a portion of the year, I am not sure.

Q. Do you remember how many miles of main you ascertained that Lynn of the company in Lynn had?

A. I don't remember the number specifically, but remember it as simply in my mind a comparison, simply a comparison of the two, but my recollection was that it was about as stated in my testimony.

Q. That is that it was a much smaller production per mile of main or to give the statement, I know in Lynn Mass., a city only slightly smaller than Des Moines, a slightly larger production and much smaller production per mile of mains laid.

A. That is my recollection.

Q. That was the impression that was left on your mind?

4006 A. Yes.

Q. But you do not now recall how many miles of main the Lynn Company had in use?

A. I do not.

Q. You do know of course how many miles of main the Des Moines Company had in use at least approximately?

A. I had in mind about 140.

Q. 140 in the year 1910 and your calculations are based upon that understanding, is it?

A. My recollection is based upon that.

Q. Now have you any recollection as to the sales made by the Lynn company in 1909?

A. Not specifically, only comparatively.

Q. Now Mr. MacVicar would you be surprised to learn that the sales per mile of main in the city of Lynn, Mass., as shown by the 25th annual report of the board of gas and electric light commissioners of the Commonwealth of Massachusetts, was 4020 thousands as compared to 270 thousands in Des Moines or that the sales in the city of Lynn, Mass., for the year 1909, as shown by this report was nearly twice what they were in Des Moines instead of much smaller?

A. I did not say much smaller. I said slightly larger, and I would be surprised, yes. It was not according to my recollection of the showing of the directory which I got my information from.

Q. What did you say, Mr. MacVicar, as reported in the record, I know in Lynn, Mass., a city only slightly smaller than Des Moines and slightly larger production and a much smaller production per mile of mains laid. That accurately reports what you said?

A. Excepting I stated that Lynn was larger, otherwise it is as I stated it.

4007 Q. The truth is, Mr. MacVicar, that statement was rather a loose statement, you were only relying on a very vague and general statement.

Mr. BRENNAN: Let me inquire, do the figures which you have quoted from the report include all these outside towns or the business transacted in the city of Lynn, without regard to the other towns?

Judge CARR: The figures I have quoted show the amount of sales per mile for the entire system as I understand it.

Mr. BRENNAN: That would include, then of course the outside towns if there are any in connection with the system.

(Question read.)

A. I was relying on what I recollected was contained in the Brown's Gas Directory referred to.

Q. But you are not now prepared to say are you, Mr. MacVicar, from any information that is available to you or that was available to you at that time, that it is not true that the sales per mile of main in 1909, as shown by this report, was 4,020,000 as compared with the 2,750,000 in Des Moines.

A. As shown by that report covering all the communities named that is probably correct, I would not want to deny that.

Q. Shown by this report covering all communities named?

A. The communities involved.

Q. Did you have any statistics showing the number of miles of mains within the city of Lynn?

A. The book referred to stated the number of miles of main referring to the Lynn Gas Company, possibly including the entire plant, may or may not have included the entire plant in the amount of consumption. It was, however, given as my recollection.

4008 Redirect examination by R. G. BRENNAN, Esq.:

Q. Now Mr. MacVicar, going back to the year 1893, to which your attention was called on cross examination, I want you to tell the court or the Master just what the controversy was before the people with respect to this water litigation that Judge Carr has asked about?

A. There was before the people a controversy as to the reasonableness of the rates charged by the Des Moines Water Company, and the advisability of the city acquiring the plant.

Q. There was involved in that controversy was there not, the question of the right of the city to regulate the price of water in the city of Des Moines?

A. That was also involved.

Q. And the controversy ultimately reached the courts did it not?

A. It did.

Q. And was tried in the state courts?

A. In the state lower court and the supreme court.

Q. And do you remember what the final outcome was of that case that was tried in 1893 and then went to the supreme court of the state of Iowa?

A. I remember that the lower courts decided it adversely to the city and the supreme court reversed them and established the city's right to regulate rates and approved the ordinance which reduced the rates $33\frac{1}{3}$ to 40 per cent.

Q. Prior to the decision of the supreme court in that case how much was the city of Des Moines paying for its fire protection?

A. Paying from five to seven hundred dollars per mile of main-laid.

Q. And you say that was after this decision, was considerably reduced?

A. Reduced to \$350.

Q. I understood you to say in answer to counsel's questions that this matter was brought to the attention of the people and finally came to the attention of the courts through the instrumentality of a civic league or citizens committee?

A. A citizens committee.

Q. I wish you would tell the Master just what individuals you now recall were associated with you in connection with that work?

A. J. J. Williams, James C. Berryhill, John J. Hamilton, Judge William Reed, Charles E. Campbell, John E. Cleary, B. A. Lockwood, and for a portion of the time Mr. Will Read, attorney, Judge Cole.

Judge CARR: You have spoken of Judge William Read and attorney William Read.

A. I did not intend to say Judge William Read, I intended to say attorney Read.

Judge CARR: You refer to the same Read all the time?

A. The same Read. And some other prominent citizens.

Q. Your attention was called to this controversy which arose between the city and the Welsbach Street Lighting Company concerning a contract. I will ask you Mr. MacVicar what the fact was with

respect to that contract as you understood it which resulted in that suit being instituted in the courts.

A. In the first place, I learned and believed that the rates paid were too high, higher than those paid in some other cities and I believed as a general proposition that the city council could not allow a contract for a term of years for street lighting that could not be reviewed by other councils. I believed also that such a contract could not be let under the law except it — advertised for and let according to it.

Q. And these were some of the questions that were involved in that case to which counsel has referred?

A. I think these were some of the questions involved.

COURT: To my mind all this evidence is wholly immaterial. I would like to know on what ground it is put. In the first place I want to say this, and I am expressing myself now because I expressed a good deal of impatience with the Judge in his cross examination, I don't think that the question of the council or councilmen's ignorance or knowledge has anything to do with it and cannot be used to impeach or invalidate an ordinance or legislative act, or that it depends on whether they knew anything about the business or not. If there had been an investigation before the council and evidence heard and valuation made and a rate based on that valuation and it was claimed it was confiscatory, after that I think the courts would hesitate very greatly to interfere at all, they would have to be convinced beyond any question, beyond reasonable doubt and to my mind that is a material question, was there an investigation. The fact there was no investigation would not invalidate the ordinance in my judgment, it might affect the strength of the presumption in its favor, that is all. Why all this is gone into I cannot see any reason for at all. I am calling attention to it now because if there is any reason for it I want to know it.

Judge CARR: You have said I understand you that you would like to have us state our position, if you want me to do that I will gladly do that.

COURT: Of course anything that shows interest or prejudice, anything of that kind, that is another matter.

Judge CARR: Of course as we have claimed from the start in this case and as your Honor remembers I claimed in the opening statement and in the introduction of evidence was that we were introducing evidence along that line for the purpose of overcoming the presumption which your honor has spoken of which attaches to the action of a rate making body.

COURT: That question Judge McPherson in his recent water works case passes on and says whether or not there has been an investigation, whether a hearing affects the strength of that.

Judge CARR: There are several authorities where that subject is treated. Mr. MacVicar was placed upon the witness stand for the purpose of showing that an investigation was made and that the council did go about the discharge of their duty in a way to ascertain what was a fair rate. The cross examination until we came to the final subject was devoted to that feature of the case. On this

final proposition Mr. MacVicar is put upon the witness stand and he is shown to have had much experience in municipal affairs, has been a student of municipal affairs and has been active in municipal affairs and the cross examination was for the purpose of trying to discover the character and extent of these activities. That was the purpose of it, if the court please in part.

COURT: I suppose that was the purpose.

Judge CARR: And to show Mr. MacVicar from his experience in life has become somewhat prejudiced.

COURT: But to come down to the material matter was there an investigation and that investigation as I understand it, would be such an investigation where there was a hearing, where evidence was introduced. That kind of an investigation would be almost an adjudication.

Judge CARR: The result would affect the presumption 4012 which the law gives to such conclusions thus reached.

Q. I will ask you in connection with the Welsbach case and then I will depart from it, whether or not the defense there as you recall on the part of the company with respect to the suggestions you have made was in the nature of an estoppel against the city, that is to say, the city having participated in the contract for several years was thereby estopped to deny its validity?

Objected to as incompetent, calling for a mere opinion and conclusion of the witness and the witness not qualified to give an opinion on the subject.

A. That I understand was the fact.

Q. Now referring to the correspondence between yourself and Mr. Haines prior to the adoption of the ordinance in controversy, what is the fact as to whether or not the correspondence was brought to the attention of the Mayor and the other members of the council either formally or informally, whether it was discussed among you?

A. The letters as stated in this pamphlet were all published in each of the three or four local papers in full and I know from conversation with some of the council that they read them.

Q. These letters you say were published in the press in the city?

A. They were.

Q. Many of the resolutions to which your attention was called this morning by Judge Carr which had for their purpose street improvements, I understand you they are usually on printed forms and the particular street or improvement described upon blanks upon these written forms and in that way there is more or less of a stereotyped form of ordering the work in the first instance.

Objected to as leading.

4013 A. That is true.

Q. So that for instance in all of these resolutions of necessity to which your attention was called for the paving of a street now the only thing that would be necessary to have the attention of the council called to as a body would be the description of the street and character of the paving?

A. At the time set for the hearing.

Q. The time set on the resolution of necessity?

A. That is considered sufficient and to be the custom.

Q. And the reports that are made by you to the council when a street has been improved and a schedule of the assessments has been made up and presented to the council, are those schedules and reports made up in advance of the meeting of the council at which they are presented?

A. They are.

Q. I wish you would tell the Master what you endeavor to have for the council in respect to these matters in the way of your reports and schedules. In other words what system you have for expediting the business, which is to be transacted before the council?

A. The system is influenced by the necessity of expediting these matters and the department in whose charge these matters are is primarily responsible for the record and for the preparation of the proper schedules or assessments and they are presented complete in detail and it would be naturally impossible to read the entire record, it would not be possible to read the entire record would not, be hours enough in the day to transact business if we had nothing else to do if we would read the entire record in detail and it is not considered necessary and never has been done since the city grew to be any size and the volume of business grew to be considerable, therefore, the responsibility of things are in the department, the department head which presents them for expeditious action by the council. That is true in all departments.

COURT: I understand you don't make any question except where there is objection filed by some property owner to the assessment?

A. These objections are filed with the clerk and the matter comes up for final approval and if there are objections then the matter is again referred to the department of streets, these objections, and if a legal question is involved, to the legal department, and then setting a date for the final hearing and then these things are reported back to the council, to the body of the council by the head of the department or the legal department and very rarely is there any question about the action of the council which coincides with the report of the department.

Q. And with respect to resolutions of consent for the sale of intoxicating liquors or renewals of such consents, that is the system through the department of accounts and finances is it not?

A. It is.

Q. The ordinances of the city require certain investigations to be made by certain of the officers?

A. It does.

Q. What significance do you attach to the treasurer's receipt and recommendation?

A. It is understood that when the treasurer presents these matters to the council through the clerk with his receipt attached, that all the necessary requirements have been followed by the applicant the way is clear to grant consent.

4015 Q. Referring again to the letter of November 22, 1910, where the reference is made to the amount of return upon a valuation of \$1,739,094, which I understand to be a clerical error it should be 894 instead of 094, did you consider the information stated by that letter in connection with your other investigation?

Objected to as a mere repetition under the testimony of this witness?

A. I did.

Q. Also you may state if you considered and investigated the charge for depreciation which is referred to in this letter?

A. It was considered.

Q. And how many conferences were had by you with Mr. Haines or with any of the other officers of the Des Moines Gas Company prior to the introduction of the ordinance in controversy before the city council?

A. One or two or more conferences with Mr. Keffer, secretary, and I believe three or more with Mr. Haines.

Q. And were those conferences prior or subsequent to the date of the letters referred to?

A. Prior.

Recross-examination by HON. GEORGE H. CARR:

— In speaking of conferences with Mr. Haines and Mr. Keffer, you mean conferences held by you personall- do you not, Mr. Mac-Vicar?

A. Personally and with the city solicitor.

Q. Was the city solicitor present at all of the conferences that you have spoken of?

4016 A. He was not.

Q. You say that the letters written by Mr. Haines to you were published. It is also true isn't it that all of the letters written by you to him were also published in the local press at or about the time they were written?

A. Not all, no.

Q. Not all the letters written by you?

A. These referred to here.

Q. Isn't it true that all of the letters that you wrote Mr. Haines during this controversy were published in the local press?

A. They were not.

Q. What letter was not so published?

A. I think there were one or two before the finish that I wrote that were not published and are not contained here.

Q. Can you name one of the letters, that is give us the date of one of the letters that you say was not published in the local press?

A. It was immediately following Mr. Haines' letter of December 2.

Q. You are now referring to some letter which you say is not copied in Exhibit 44, are you?

A. It is not there.

Q. What do you say as to all the letters from you addressed to Mr. Haines which are in Exhibit 44 having been published?

A. They were all published.

Q. You furnished copies of them to the press yourself?

A. I did. That is I did of those I wrote, not those Mr. Haines wrote, he furnished those.

Q. So the letters you wrote Mr. Haines were published in the local press, that is the letters contained in Exhibit 44, were published in the local press at or about the time they were written?

4017 A. They were.

Q. I will call your attention to Exhibit No. 13, complainant's Exhibit No. 13, of the evidence in this case and will ask you if that is the letter to which you refer as written by you and not included in Exhibit 44?

A. That is one that I had in mind that was not published.

Redirect examination by R. O. BRENNAN, Esq.

Q. There was one further question I wanted to ask you, either in the direct examination or early part of the cross examination when you were stating the extent of your investigations and the numbers of miles of mains in use by the Capital City Gas Light Company in 1893 or '94, I think you testified there was approximately forty miles and in 1910 about 180 miles?

A. Yes.

Q. This afternoon in answer to a question put to you by Judge Carr I think you used the number 140?

A. 180.

Q. I wanted to call your attention to that, and have you explain whether you mea-t 140 at this time or 180 as you used in your former testimony.

Objected to because it mis-tates the evidence of the witness and assumes that he testified to that which the record shows he did not testify to.

A. The statement as made of 180 miles is I believe correct. I think the water company reached nearly 140.

Witness excused.

4018 EDWARD W. BEMIS being continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Mr. BEMIS: Before the questions begin there are a few typographical and other changes I would like to make, I have had time to look over since the last meeting. I don't think any of them change any conclusions or enter into any conclusions but relate to matters introduced by way of illustration. On page 28 where I refer to overhead charges on paving and on the rest of the property by Mr. Lea and Mr. Baehr, I think that the exhibits of those two men indicate the following figures for those matters on page 28. The second paragraph starts, Mr. Lea thus charged into overhead \$567,780 and Mr. Baehr \$615,603. I think that is correct as to Mr. Baehr,

but as to Mr. Lea it omits a charge for organization and legal expenses of \$68,023. If this is added as it should be, for that is included in overhead charges by Mr. Baehr, and is a usual charge included that would make that figure of Mr. Lea \$635,803. In the table of overhead on new paving according to Mr. Lea which I had given as \$111,888 I think should be \$88,126, the overhead on new paving and Mr. Baehr which I had given as \$112,669 I think should be \$77,391. The overhead on the rest of the property now will have to be correspondingly changes and where I had \$455,892 for Mr. Lea it should not be \$547,677 and for Mr. Baehr instead of being \$502,934 I make it now \$528,222. The depreciation of all property according to Mr. Lea I think is correct at 14.73 per cent. According to Mr. Baehr I took 11.75 per cent. I think it should be 11.71 per cent. The overhead thus depreciated according to Lea which I had at \$387,779 I now make \$467,004. The overhead according to Mr.

Baehr which I had made \$443,839 I now make \$66,358.
4019 all of these changes on that page are not used by me in any calculations or computations that follow but are introduced there by way of illustration. On page 30 I may have changed it in my testimony before, and I may not, the second line, the 8 per cent should be 8 cents per thousand after the first word of the second line on page 30 of the Exhibit. I was only correcting my copy, it may be it has been changed in the others. Turning next to page 33, the table I make a slight change there, very slight, in that with regard to the paving new. Mr. Lea near the top of page 33, where I have \$419,685 new, I now make it \$418,672 a change of only a thousand dollars and the present value which I had at \$370,598 is now made \$369,604 again a change of about \$1000. With regard to Mr. Baehr on new I do not change, but the present value which I had at \$344,890, I now make \$362,873. These changes also do not affect any calculations or any tables that follow. Next I note on page 55, perhaps it was referred to in the testimony, in the long paragraph a little below the middle of the page the sentence beginning, the unit cost of meters employed are those not given. It should be the unit cost of meters employed are given. The word "not" is a typographical error perhaps it is crossed out in the copies the rest have.

COURT: On page 33 I want to call your attention to mains and services new, depreciation is included in that?

A. No, only these parts where paving was involved.

COURT: You are way above my recollection of the figures here.

A. You mean new paving?

COURT: No my recollection is the whole figures of base value is not much over a million, mains, services, building and equipment

I am talking about base value, not reproduction or present value.
4020 value.

A. This \$1,993,243, the mains and services new including the overhead and present value after taking out the depreciation.

COURT: I think you are mistaken there in these figures, that is my recollection now, I may be mistaken.

A. I call your attention to page 17 of Mr. Baehr's exhibit where these figures appear.

COURT: That is the present value with the overhead charges?

A. Yes, that is the way I mentioned it here. I had spoken of page 55. Page 62 I may have there again changed or added the two words that should be added, "and 1905." Page 64 I am sure I have not spoken of. In the second paragraph of page 54 the 4th line after the figures 2,292,035 there should have been a capital "M" indicating there thousands of feet. A capital "M" or three ciphers, whichever you prefer, indicating that is two billion, not million feet. Likewise in the next line where I have the words "Applying those sales" 531,991 there should be M indicating thousands of feet. To make the sentence read properly it would be well to have in there of 1910 the item is 851.19, the word the item would make better sense, although it does not change the meaning. Page 68, I may have made that change in the testimony in the second paragraph the 4th line 9.67 should have the word after it, indicating cents, of course that is perfectly obvious, but noticing it I thought I would make the change. On the next page 69 at the end of the second paragraph we have the expression "and is over 7 per cent higher than the highest year." It should be over seven cents higher than the highest of those years. It is evident from the table that was meant and it was merely a typographical error in putting it percentage instead of cents. On page 83 it may be those changes were made in the testimony, I rather think they were, the third paragraph, it should be the question is not the reasonableness of 90 cent gas for the past, but 1911, and in the last paragraph beginning Consolidated Gas Company in New York in 1908, instead of 1808. The last change I have noted here is page 88 where in the paragraph below the table the word Chiefly in the second line should come after the word "gas" instead of before the word to make good sense, sold their gas chiefly in Springfield, that is Springfield was the chief company had any such sales. It was a mere mistake in dictation putting the word in there instead of the other place. None of these changes enter in any more than typographical errors or illustrations which were used. It was prepared in great haste many of these pages, and I am surprised there are not others I have not discovered.

Q. You refer to these matters as changes. They are corrections are they not?

A. Yes, sir.

Q. Errors that you have discovered?

A. Yes, sir.

Q. Referring again to this page 33 for a moment in this second tabulation, what does this \$1,993,243 represent?

A. It represents the value of the mains and service as given by Mr. Baehr now with the overhead and the paving, represents every thing that went into that valuation as given on page 17 of his exhibit.

Q. Page 17 does not show the mains and services does it?

A. *Nom* it is mains, services, and meters, the whole thing united

in the distribution system, I use the word mains and services, should have added meters in there, entire distribution system.

Q. Going to make a difference isn't it?

A. Yes.

Q. Amounts to how much?

4022 A. He puts the whole total together there, that table on the distribution system, in the next table, page 19 he separates the items and the meters are about \$264,000, \$264,307.

Q. And in the same way here your statement as to Mr. Lea is not a statement of the reproduction cost of the mains and services but is a reproduction cost of the entire distribution.

A. Distribution system, yes.

Q. And the deduction which you make from these figures has the same depreciation properly chargeable against paving?

A. It may be that would be a slight——

Q. Wait a minute, answer the question.

A. Yes, I think so.

Q. On your own theory this deduction would not be sound without changing these figures would it and getting out the mains and services instead of the entire distribution system?

A. Yes, the meters should be taken out.

Q. Well some things ought to be taken out ought not they?

A. Properly speaking the mains, services and meters include the distribution system.

Q. There is a small item of tools and things like that?

A. Yes.

Q. So that these figures shown on page 33 are not the proper basis for the computation which you assume to make there?

A. There should be a further allowance for those matters. How it would affect the table I am not sure.

Q. You do know that upon your theory as stated here they are not the proper basis for this computation.

A. I see at once that the meters should have been taken out.

Q. Well can't you answer me directly, these figures as there given are not the proper basis for the computation which you attempt to predicate upon them?

4023 A. Yes, sir. For taking out depreciation you should separate these three items.

Q. Can you answer it without depreciation?

A. Yes, sir.

Q. That is a fact that these figures that appear there are not the proper figures.

A. Certainly. I am very glad to say that should not be done.

Q. Turning over to page 50 if you will, you have headed this cost reconstruction and this covers some pages I think. Now what is the purpose of that part of your argument?

A. My report, I had in mind in that to lead up to the table on page 54 which presents the figures from the books, from Prof. Marks and Mr. Baehr's appraisals and from certain estimates of duplication based on the unit cost as given by Mr. Hall in the last five years.

Q. Stating it a little more concisely is it not true that the pages which I have referred to call attention to certain testimony of other witnesses for the purpose of drawing some deductions from this testimony?

A. Yes.

Q. Now do those pages that I refer to contain any original statement of any fact by yourself or are they merely an argument or discussion of the testimony of the other witnesses?

A. There are some computations that have not appeared in this form but there are not basis figures unless it be in connection with meters where there may have been a little additional data about freight and meter connections which I got from Mr. Sangster and which I refer to in connection with—

Q. On what page?

A. In making up pages 55—

4024 Q. On which one of these pages do you refer to?

A. Page 55.

Q. I am referring to pages 50 to 53 inclusive?

A. Those pages are merely introductory to 54.

Q. No statement of any new fact in it is there?

A. Yes.

Q. Simply a discussion and arrangement of facts which you took from the testimony of other witnesses?

A. Yes.

Q. How did you get that \$525,274 as the cost of buildings, machinery holders and office furniture?

A. Which page please?

Q. 50.

A. That as I recall is taken from Mr. Hall's report.

Q. Whereabouts.

A. I am under the impression I also had it earlier than this. If you will turn to page 16 of my report you will find in the last column the total of the works and office furniture given in two separate lines and that is based as I stated in the previous page from certain computations in Mr. Hall's exhibit, defendant's Exhibit 30, which I can turn to if you wish.

Q. I wish you would tell me where you got the \$513,421.84 on page 16. Identify that item in Mr. Hall's report. As I understand you this \$525,274 is the sum of \$513,421.84 and the succeeding item, those two items?

A. That is right.

Q. Where did you get \$513,421.84?

A. That is the sum of the three previous columns in that line. Now I will have to turn to Mr. Hall's report.

Q. Not the sum of the three previous columns but the sum of the corresponding items, in the three previous columns.

4025 A. It was a simply computation based on figures given in Mr. Hall's report page 21, and there you will find on page 21 of Mr. Hall's report the figure, \$75,220.84 in the middle column. You

will find the others by addition, they were not put in just that way in his report.

Q. What other items did you take?

A. Tanks and holders No. 1, 2 and 3, old gas works, real estate, gas buildings and machinery and water gas plant.

Q. That won't bring you out right will it?

A. I will have to compute again to be sure.

Q. Isn't the \$75,254 part of the \$252,104.73?

A. The columns balance at the bottom.

Q. Is \$75,220.84 on page 21 of Mr. Hall's report part of this item \$252,104.73, the latter item appears to be the total doesn't it?

A. I shall have to recompute a moment on page 21 to answer your question. That is not quite as I have it, add in \$120,000 for the holder and I get instead of 513 549, but I am not sure the land should have been there, the land is in the previous column I thought it was in that column. I have got it exact, \$513,421.84.

Q. How did you get it, what items did you take into account on page 21?

A. On page 21 I took into account tank and holder No. 1, \$15,000 Tank and holder No. 2, \$33,356.64, tank and holder No. 3, \$40,057.41 old gas works \$25,000 gas buildings, machinery, \$252,104.73, water gas plant, \$27,903.06, estimated cost of holder, \$120,000.

Q. Those items give you what?

A. The item used in the last line on page 16 in that column 4026 opposite works \$513,421.84.

Q. And then you add to that your office furniture and in that way you get \$525,274 on page 50, is that right?

A. Yes.

Q. Now then you compare that with Mr. Baehr's estimate of the cost new without any overhead on the same items?

A. I endeavor to put the same items in, I think I did, made \$504,891.

Q. Of course it is not a comparison of the same items as a matter of fact is it?

A. I endeavored to make it so, if I did not there may have been some oversight.

Q. Well in the first place where is tank and holder No. 1 in Mr. Baehr's estimate?

A. They are no longer there, they have been scrapped. I think I so stated somewhere in my testimony that Mr. Baehr's appraisal was of that which is not there, while the books contained all that ever had been there.

Q. It is not a comparison of two appraisements or of the appraisement and of the cost of the same things?

A. No. It don't purport to be exactly that.

Q. Now Mr. Baehr includes also something on account of stable equipment doesn't he?

A. Yes.

Q. About how much is that?

A. I don't remember, I remember the item but I don't remember just how much it was, it is one of those items I have forgotten now whether I put it in works or distributing system, but I think I put it in works, the stable being located at the works. It is my impression it is in the item of the works.

4027 Q. The item is shown on page 72 of Mr. Baehr's report as \$35,374 and you added that to \$469,517 in order to get your \$504,891 didn't you?

A. Yes.

Q. What is the \$469,517, what does that represent, the amount to which you say you added this \$35,375?

A. It represents the plant aside from the land and by plant I understand and mean everything at the works, the manufacturing plant, buildings, holders and everything down there on that land.

Q. It does not include this stable equipment and that sort of thing?

A. That is in the \$35,374 which we just mentioned.

Q. So if you took actually the plant from Mr. Baehr's report you would take \$369,517?

A. In that case I should also have to take from the books of the company a different amount.

Q. Pardon me, just answer the question, I will reconcile those things. You take \$469,517 that is what Mr. Baehr puts down in the plant?

A. Yes.

Q. We have to add office furniture to make our comparison accurate do we not?

A. I should think we would have to add the whole \$35,000.

Q. You have buildings, machinery, holders and office furniture, that is what you have taken into account to make your book cost haven't you?

A. I have taken everything that was not in meters, services and mains.

Q. What is there in your \$525,274 on account of general office and stable equipment?

4028 A. Everything that is not in meters, services and mains I think.

Q. You don't know whether there is anything in there or not aside from office furniture do you?

A. Only as the books may show it.

Q. You have not examined the books have you?

A. No, took Mr. Hall's report, page 21.

Q. Is there anything in Mr. Hall's report at page 21 that indicates you have in there anything except what you have here, if so read it to us.

A. Mr. Hall's report shows office furniture, it shows tanks and holders, old gas works, these are all in here.

Q. I asked you to read the items that were not in your statement from his report of buildings machinery, holders and office furniture?

A. He has a general term of gas buildings, machinery which I

have understood to mean everything at the works except the working capital.

Q. Now just leave out your understanding and tell us where you find that in this report.

A. The report is silent as to whether the items given on page 21 include the capital account or not, but I think Mr. Hall's testimony is that all the capital shown on the books is covered on page 21, all the construction cost.

Q. I wish you would take this \$469,517 of Mr. Baehr's, that is the amount he has for plant isn't it?

A. Yes, sir.

Q. Now then you added to that general office and stable equipment \$35,374.

A. Yes.

Q. Now do you know what that item includes?

4029 A. I heard Mr. Baehr's testimony about it and I have read some analysis of it in the exhibit.

Q. Turn to page 124 of his report.

A. I can see now, I know what is included in a general way, the office record and the stables.

Q. You will find furniture and fixtures here \$14,015?

A. Yes.

Q. Now will you add it to \$469,517?

A. \$483,532.

Q. That instead of what you state here, \$504,891 is what Mr. Baehr's reports shows and is the base figures, the building, machinery, holders and office furniture isn't it?

A. No.

Q. Will you point some item that is shown by Mr. Baehr's report of building, machinery, holders and office furniture?

A. When I said works and office—

Q. That is not my question I asked you to point some other item in Mr. Baehr's report which is shown by that report to be put in there on account of building, machinery, holders and office furniture, some item other than the two to which I have called your attention?

A. That item defined in that way appears to include only \$483,532.

Q. The difference between that \$525,274 is what?

A. Computing and not agreeing to the validity of it.

Q. I don't ask you to agree to anything, simply ask you to tell some things here where we can't dispute about them.

A. \$41,742.

Q. You state in your argument on page 50 that the difference between cost of the buildings, machinery, holders and office
4030 furniture as shown by the books and as estimated by Mr. Baehr is less than \$20,000 don't you?

A. You are referring to the third paragraph on page 50 I suppose?

A. Yes.

Q. I state there that the cost referring to what was in the previous paragraph is \$504,891, I see now and I frankly agree that I do not use as broad language in the previous paragraph as I did in the table

or as probably should have been done. I intended to include all works and all office.

Q. When you do do that then you haven't any warrant in Mr. Hall's report for the statement for the \$525,274 have you?

A. I believe so.

Q. Will you please point it out?

A. That I learned that his testimony included—of course I always state these things subject to correction, but I understood his report to include all the capital charges.

Q. I asked you to point out this in here which you understood, these particular items, not his report, but the particular items you assumed it here to cover?

A. I see his report on page 21 showed works and office \$521,274 and they are all relating to works and office.

Q. Where are the words "works and office" there?

A. You mean page 21 of his report?

Q. Yes, I don't see any item works and office.

Q. They are not in so many words, but it means the same thing.

Q. Isn't any item marked works and office there?

A. No. But I am convinced that that is the meaning of his term, he has no other term to cover capital charges at the works.

Q. I have not asked you that. I asked you to point out the item here if you can point it out, will you do so?

4031 A. I can't see it and I have not the statement that he included there stable and office records, but if it was in the capital account it must be there.

Q. Now pass to the next paragraph, you say the books show the cost for meters of \$187,755.93. By that you mean Mr. Hall's report shows that?

A. When I refer to books I refer to his report.

Q. While as Baehr estimates their cost without overhead charges \$206,272 or about 21 per cent more.

A. I so state there.

Q. Will you subtract the \$187,755.93 from the \$206,472?

A. I see, about 20,000 more instead of 20 per cent. The difference is closer than 20 per cent.

Q. What is the difference in dollars?

A. \$18,716.07 and that is only about 10 per cent.

Q. That is a little less than 10 per cent instead of 21 per cent.

A. Yes, it should be corrected. It shows a percentage even less than I state.

Q. Did you make these figures yourself?

A. Yes, but some of them I made in my head as I went along. I prepared this with great haste these particular portions.

Q. Now I want to go to another item here, you say on the two items of works and meters combined the books show \$713,030—that is coming right along here—of course there you mean Mr. Hall shows that.

A. I refer to Mr. Hall when I speak of the books.

Q. Where did you get \$713,030?

A. From the addition on page 54 of the item of \$187,756 for meters and works and office of \$525,274.

Q. So that this item either includes or don't include—
4032 leaves that item of stable equipment up in the air.

A. Stable equipment and office records.

Q. Where do you get the figures making up \$711,363. Take \$206,472 you had back there for meters, start with that, where do you get the balance?

A. You mean out of Mr. Baehr's figures?

Q. Yes, to make up your \$711,363 as Mr. Baehr gives without overhead on these items.

A. I think the correct figures come in the table as—

Q. I don't care for the table. The table you said you made up from this, not this from the table.

A. No, I made up the table independently I think. \$504,891 on page 54 and the \$206,472 for meters on the same page is \$711,363 exactly the figure I get on page 50.

Q. If you take your 200 and instead of taking it from your subsequent table, if you take meters, \$206,472 and the plant as given by Mr. Baehr himself on page 72 at \$469,517, what will your total be?

A. It will be that much less because you omit stable equipment and office records of course, the same omission we have been talking about.

Q. If we take the corresponding items of Mr. Baehr's report we will have a difference of some \$23,000 instead of \$1,700 won't you?

A. No, I deny that I have not taken from the books the items corresponding to his full figures. I say I have.

Q. You mean from Lea's report?

A. Yes.

Q. Do you know whether the books show anything at all with reference to office record?

4033 A. No, but I know they showed everything of construction and what I am trying to show by the books of the company is what they charge in the construction, I am not saying whether charged correctly in the construction.

Q. You are trying to make some comparison between what the books show and what Mr. Baehr's report shows?

A. I am not saying whether the books are right or wrong.

Q. What I want to get at is this, do you know whether or not the books have any items for instance of these office records the \$10,000 in Mr. Baehr's report?

A. I do not. But I know if they are anywhere they are in this item on the books. The books have no other place for it except right there. You don't know whether there is any entry of that item on the books at all?

A. No, but if there was any it would be in there and my statement that the books showed this because of the fact it is works and office and that is on the books as in that item.

Q. Now then you take meters for instance, you are not comparing the same things on meters either are you?

A. I am comparing what the books show of meters with Mr. Baehr's appraisal of the present meters new.

Q. You are comparing what the books show as to all meters?

A. As to all meters.

Q. Whether they have been scrapped or not, is that right?

A. No as to how they have treated scrap meters I am not sure. They may have charged those and I understood they did into their renewal account, but in that case their capital would not remain reduced when an old meter was scrapped.

Q. Then you ought not to have charged depreciation against the meter account ought you?

4034 A. Only because I see the whole thing is shown by Mr. Baehr and Mr. Lea as being depreciated.

Q. Isn't there anything in this document based on your own judgment?

A. It is a mere comparison between what the books have still on their accounts as construction with these appraisals.

Q. Do you know whether this \$187,755.93 is the actual investment in meters or not?

A. It is the maximum investment. It may be depreciated as you say it may have failed to show the renewals of the meters that were scrap- and other- substituted. This is all they have ever charged into construction.

Q. Let me ask you this, what I want to know is whether the \$187,755.93 represents all the money that has been spent in the purchase of meters or not?

A. Yes, for new meters all money that has been charged as properly applicable to new construction.

Q. That don't answer my question. Do you know whether that amount represents all of the money that has been spent for the purchase of new meters that has been shown by the books. I am simply asking you whether you know.

A. I don't positively know, I know this much it can be in but one—

Q. Wait a minute, you have answered my question. You don't know whether it represents the entire expenditures shown by the books for new meters or not?

A. It is all the accounts put on these books as being spent for new meters.

Q. You have not examined the books?

A. No, according to Mr. Hall's report.

Q. The fact is you haven't any knowledge about it at all?

4035 A. I have repeatedly said I took his exhibit as a correct representation of what the books show.

Q. Still you have not hesitated to assert very promptly that it is either one thing or the other here in answer to my questions instead of stating you don't know.

A. I was not intending to deceive you at all.

Q. Your comparison is between what Mr. Hall's report shows as the aggregate amount put on the books here for new meters and what Mr. Baehr estimates as the base cost of the present meters?

A. Yes.

Q. These are not the same things are they?

A. Not necessarily because some of the meters may have been scrapped and new meters substituted.

Q. When I buy a meter and scrap it would that affect the amount which the company originally paid for it.

A. It may treat it in two ways—

Q. No, no, you can't treat the amount they originally pay for it in two ways. I am not asking about subsequent entries, I am talking about the amount originally put into the meters, is that affected by the subsequent disposition of the meter in your judgment?

A. Yes, I will illustrate it if you will allow me.

Q. I don't care to have it.

A. I think I should make my meaning clear otherwise it might seem ludicrous.

Mr. BYERS: You have a right to make whatever explanation you want.

A. I will do it right here then, suppose I buy a meter for \$7.00 and many years afterwards scrap it and put in a better type of meter for which I pay \$10, now I might charge that \$10 meter as 4036 extra capital account making \$17, but I think it would be more proper to take the difference and put only \$3.00 into capital account at that time so that although there were two meters bought a \$7.00 meter and \$10.00 meter yet after the \$7.00 meter had been scrapped the books show only a \$10 investment and would not show the old meter at all, that is what I mean by saying I believe the books only show the cost of the meters now in use, but I don't know that positively, they may have kept their books in the other way which I would not think was good, but I assume the company kept the books here the other way.

COURT: The books show depreciation by reason of obsolescence?

A. The books show and I understand that is what they show in regard to street mains if they charge that into renewal account and the mains are scrapped or displaced on account of being too small, something of that kind so that practically the operating expenses have already covered some scrap material and depreciation while the construction cost is supposed to be in the construction cost of only that which you can now find. But I don't think that is true in fact I am positive from reading the testimony and evidence generally and exhibits that that is not true where something has been scrapped and another substituted, as for example holder No. 1. There was something that disappeared entirely and to take its place was not any enlargement or improvement such as substituting a six inch for a four inch main in the same location. There I understand it remains on the books.

Complainant moves to strike out all of the witness' understanding

as to the way the books are kept because not based on personal knowledge, therefore secondary and not competent.

Q. Now to get back to my question, do you think that is a
4037 man, taking your illustration bought a meter for \$7.00 and
then bought another meter for \$10 the amount which he had
paid for meters would be affected by the way in which he treated
the old meter?

A. No, but the construction on the books might be. The capital
cost of meters on the books, construction cost.

Q. And that is something I didn't ask you about at all. What you
did was to give all your entries you would make to your capital ac-
count. Now what I want to get at is this, do you think taking your
own illustration that if a man had bought one meter and paid \$10
for it and another meter and paid \$7.00 for it, he would have paid
\$17 for meters?

A. He would have paid \$17 for meters.

Q. Do you think he would.

A. I don't think proper to charge it on the books as capital.

Q. I didn't ask you that at all. I am talking about costs.

A. I say he would have paid \$17 for meters of course.

Q. Do you think the amount which he had paid for meters would
be affected at all by subsequent charges that he made to his capital
account?

A. The seventeen is a fact, always so remains.

Q. Of course if the books had been kept the way you say they
have, the way you say you think they have without any knowledge
on the subject, of course this table of Mr. Hall's don't show the total
investment does it, but shows less than that. Now can you answer
that without argument?

A. Only shows my conception of the investment.

Q. To put it another way if the books had been kept the way you
say you think they have then Mr. Hall's table here purporting to
show the total cost to the company does not in fact show the
4038 actual cost but shows less than that amount, that is true
isn't it?

A. Yes, operating expense showing the balance.

Q. Now you say this conforms to the Wisconsin commission that
12 per cent is ample for overhead charges. You are entirely fa-
miliar with what the Wisconsin Commission is doing on these things
aren't you?

A. I have read several of their decisions, I am in a measure fa-
miliar with it.

Q. You knew didn't you that the Wisconsin Commission had
tried 12 per cent and recently abandoned it because they found it
was too low.

A. No. I have a letter to the opposite from them within two
weeks.

Q. And your testimony is based on this letter?

A. And report I read. I read a report within six months of theirs.

Q. You don't know except in the case of the smaller towns where

these things are relatively smaller they have decided to abandon 12 per cent and adopt 18 per cent?

A. No.

Q. On the next page you give an item \$259,102.59 as base cost of services as estimated by Mr. Baehr. You remember you testified with reference to that item it was only by indirect computation it could be obtained from Mr. Baehr's report?

A. I don't remember now what I testified.

Q. I will call your attention to direct examination at page 3734 of the report. Now right at that point is it possible to find these figures, the figures you have given here, \$259,102.57 without a careful working out of Mr. Baehr's tables and schedules. A. I think

one has to go through some such process as I have done here. 4039 Q. The separation is not made in the report so it can be ascertained without careful examination. A. I don't see any way of getting at it except this way. Did you so testify?

A. I may have done so. It is given on page 113 by the addition.

Q. Turn to page 119, you studied this report carefully didn't you?

A. As much as I had time to. Given on page 119 with the additions made.

Q. It is given on page 119 the base figures total \$259,103 isn't it?

A. Yes.

Q. And that is true of every other base figure Mr. Baehr uses isn't it?

A. Probably.

Q. And you were incorrect when you said you had to compute them?

A. Yes, I think that should have related more to that other testimony on overhead, that refers partly to him, more to Mr. Lea referred to in another place.

Q. Simply because you were not familiar with the report to know where to find it?

A. Probably.

Q. Are the costs of services as shown on the books and as computed by these various witnesses based on the same services or not?

A. I can't say. The first column \$285,130 is based on what Mr. Hall reports the books to show as construction or capital account of services. The other is Mr. Baehr's appraisal of the services now used or abandoned and still in the ground I suppose.

Q. You take this up as to Mr. Lea's report do you not at the bottom of page 51?

A. Yes, sir.

Q. And you start out with an incorrect statement don't you 4040 in the first sentence?

A. I am not sure that it is incorrect. I may not have understood what he meant by his investment cost.

Q. Well as a matter of fact Mr. Lea testified affirmatively didn't he that those figures there were not his figures, that he didn't know what they did mean and that as far as he was concerned they did not represent the investment?

A. I don't recall he said that. I remember now you speak of it

he said something along that line, I understood from looking this thing over that this was the basis for his treatment of the meter question.

Q. Didn't you, before you attempted to state here, the effect of Mr. Lea's testimony or what he said verified that by looking at the transcript?

A. No, didn't have time.

Q. So you just put it down and swore to it?

A. I looked to this table in his exhibit page 11.

Q. You didn't have time to verify the statement you just let it go.

A. I understood later it was some data that had been given him by the company that he didn't work it out himself, but had taken it from I think what has gone into the record as Exhibit 8 of the complainant. I should therefore, although he didn't work it out it would be something that was correct.

Q. What I am getting at is whether you want us to understand that the statements made here where you didn't have time to look them up you just made them and let them go at that?

A. This is a correct statement as I understand it.

Q. It is a correct statement of Mr. Lea's testimony is it?

A. Of the exhibit as I found it page 11. I think that 4041 sentence as I understood that subject was his or he made it his.

Q. You think this is a correct statement of Mr. Lea's testimony?

A. I don't remember, was not aware when I wrote this and am not now aware that he abandoned this figure.

Q. Answer the question won't you, are you willing to say now this is a correct statement of Lea's testimony?

A. I don't know. I am willing to say it is a correct statement of his exhibit.

Q. Didn't know when you wrote it whether it was correct or not, didn't take the trouble to verify it?

A. I took the trouble to verify that my sentence was correct. I think it is correct.

Q. Then you say it is correct.

A. I believe it is.

Q. You then took that and taking this statement which is not Mr. Lea's statement you apply a percentage to it and get what you call Mr. Lea's cost of the services without the overhead don't you \$262,-758.15.

A. I get it by applying percentage as stated here.

Q. You get your estimate there of Mr. Lea's original base figure on these services by using these figures you have referred to and applying a percentage to them.

A. Yes.

Q. And you do that without taking the trouble to see whether Mr. Lea said those were his figures or not?

A. No, I simply turn to his exhibit, I did not recall he had repudiated them and I don't have any recollection of not being sure of them.

Q. Why do you use the word repudiate?

A. I think you used the suggestion he had and I have not known it.

4042 Q. I was assuming you had stated the purpose for which you used these figures, not he had repudiated them at all, but he had stated I recall that he did state that those were figures that he did not take as representing the actual cost and that the actual cost for the purposes of that table was wholly immaterial. Now you didn't take the trouble to verify your recollection as to what he had testified before you deduced this conclusion as to his original cost of these services.

A. No, I did not realize he had said anything that required my modification of that page 11 and so I took it.

Q. Now you next comment on Mr. Mark's entirely independent investigation do you not?

A. Yes, on page 52.

Q. Where do you get that \$482,639?

A. From his exhibit, I think I give the page here, 75.

Q. What items do you take if there is more than one. See if I can't aid you, did you add the total buildings contents, fence and paving \$217,780 and yard structures, fixtures, etc., \$264,859.

A. That makes the figure.

Q. Well is that the way you got it?

A. I think so.

Q. Do you remember?

A. No, I do not.

Q. You compare here Marks' cost with his overhead added to the other costs without overhead don't you?

A. Yes.

Q. So in order to get the same basis so as to make a fair comparison we would have to take overhead out of his wouldn't you?

A. Not for the comparison I was trying to make, I stated
4043 just what I was trying to make.

Q. A comparison is not worth much unless the circumstances are the same is it?

A. The comparison has just the force that it claims to have and no more.

Q. You find a difference there of 12 per cent. Will you subtract \$482,639 from \$525,474?

A. That is \$42,635.

Q. That is the difference, that is 12 per cent of what. It is only 8.8 of the \$482,639.

A. It is only 8.8.

Q. That is another error isn't it?

A. Yes. The result of the table is not affected in the slightest. The table on page 54 remains unchanged.

Q. You add there the tools and stable equipment, \$15,192, are those added in these other amounts that Marks is compared with or not?

A. I thought so.

Q. Do you know whether they are or not?

A. I looked through his report at the time I wrote that table and put in the stable equipment where I thought it belonged.

Q. That don't answer the question I asked whether they were included in these other figures with which you compared this total of Prof. Marks.

A. You are referring now to his grand total of \$1,664,000?

Q. Oh no. You say page 52 if however, the tools and stable equipment of \$15,192 shall be added as probably they should be to Prof. Marks' computation, the difference is only about \$28,000 or about 5½ per cent. Now are they in the figures with which you compare Prof. Marks' figures?

4044 A. I never found those, I did not as I recall it find exactly where he did place tools and stable equipment, had not thought to look through it carefully so I make the statement in the same table here in my sentence.

Q. (Question read.) Are they in other words in the books of the company?

A. Are they in other words in the books of the company is your question as I understand it now.

Q. My question is, was the tools and stable equipment in the figures with which you compared Prof. Marks' figures?

A. In other words—

Q. Don't you know what you compared with to get that five and a half per cent?

A. Yes, the works and office I think were available. We were over that a little while ago.

Q. And you could not tell from Marks' report whether it is in the \$482,639 or not?

A. As I recall I could not.

Q. Now will you turn to the second item on page 75 after the two you added together to get the \$482,639?

A. Oh yes, it is there. I had it there when I dictated the page, but I had forgotten.

Q. Now do you know whether they are in the \$482,639 or not?

A. That \$15,192 is no- in the \$482,639, in other words the statement on page 52 is correct.

Q. Now here in the last sentence on the top of Division 1, to reconcile the Marks differences with some of the property originally on the books, with his new cost as shown by Mr. Hall don't you?

A. Yes. Where it has been entirely scrapped like a holder.

Q. So you adopt this theory as to the holders and the
4045 other theory as to meters.

A. I can see a reason for a difference and suppose it was made.

Q. You adopt when it suits your convenience without verifying the other theory from the books?

A. I have not had a chance to go to the books.

Q. I didn't ask you that. You have adopted it when it suited your convenience and have not verified the other one from the books.

A. No, I did not adopt either one, made the observation there without comparison. I did not state positively.

Q. So that in order to really get the full force of this we ought to insert here somewhere that these observations are based upon unverified suppositions.

A. Not so far as the table goes, but where I make some suggestions as to how the books could be that of course is only a supposition of my own. I think the text makes that clear, I intended it should.

Q. Now your next items here are some services and meters that Prof. Marks uses. Now when you take services and meters from the reports of Messrs. Lea and Baehr you take the base figures?

A. Yes.

Q. Now when you take from Prof. Marks' report do you do the same thing?

A. No. I take his with all overhead he put in. I think I make that clear here somewhere.

Q. Well just point it out, where?

A. Well I say the appraisal of Prof. Marks new and in the other case I say the appraisal knew omitting land, paving and overhead, the fact I make that omission in the heading of that column, page 54 makes the contrast.

Q. I am talking about page 52, I have not got to this 4046 table. I am talking about page 52. The discussion of these matters that are the basis of this table as I understand it.

A. Well on page 52 in the third paragraph I state there is ample agreement between Prof. Marks on structural cost and Mr. Baehr without his overhead allowance and the book records shown by Mr. Hall. I think that implies that Marks included overhead because I take pains to say there is ample agreement between Prof. Marks of structural cost and Mr. Baehr's with overhead allowance and the book records shown by Mr. Hall.

Q. Then this is a comparison, if I understand it, between the Marks figures, including overhead, the book figures which are based not on the same things but on the total cost during a long period and Baehr's figures without overhead.

A. Yes.

Q. And what intelligent conclusion do you expect to draw from such a comparison as that where no two of the things compared are on the same basis?

A. The conclusion that the overhead was nowhere near as great as Mr. Baehr claims and what little there was had been paid for in operating expenses.

Q. That is the point that you are trying to argue here.

A. Those two points.

Q. Where did you get the Marks figures here, take the \$513,672?

A. Turn to page 75 of Mr. Marks' report, I think it is further back possibly but I got the figures from one of these pages here.

Q. Can you tell us where?

A. I said there Marks estimated meters new at \$220,000, that

figure is obtained by adding the last two on the first table of Marks on page 25.

Q. Opposite the figures 227 and 228?

4047 A. Yes, sir. It was intended to be a round figure. I will give you the exact figure. It is \$220,298. The sentence goes on in reference to house and street lamp service estimated at about \$293,000. Again you take out \$274,720 on page 75, the first table and the \$18,654 and you get \$293,374, but I omitted the odd dollars leaving round figures in thousands. And the difference of those with the entire odd dollars included give \$513,672 which you ask about.

Q. Do you remember what basis Prof. Marks took for his overhead on these items?

A. No.

Q. These items include his overhead charges do they not?

A. Yes, so far as he put them in, I did not try very carefully to follow.

COURT: He has not got any overhead charges at all on distribution system unless it was meters?

Q. I think the meters he finally took back the overhead. You go on with a comparison of the street mains without stopping to refer to these figures and you deduce the table that appears on page 54 from the figures that you have worked out on the preceding four pages do you not?

A. Yes.

Q. And carry into that table on page 54 such errors as appear in the preceding four pages.

A. I don't know as I recognized any errors. Where you have pointed out one or two cases, they were not matters that were fundamental or entered into the table, they were simply illustrations of what Mr. Lea used which I did not use in the table or something of that kind.

Q. You compare in this table Mr. Baehr's figures without
4048 any overhead with Prof. Marks' figures including such overhead as he allowed?

A. Yes.

Q. And you got a difference between the books and Marks of how much in the aggregate?

A. About \$18,000.

Q. A little less than \$18,000?

A. Yes, about \$17,500, in that neighborhood.

Q. Something like 1 per cent?

A. Yes.

Q. And you say somewhere in your report that this was made up by Prof. Marks, without any knowledge as to what the books showed as an entirely independent proposition don't you?

A. Yes, I said that in so far as some special points were testified to.

Q. Now you interlined in that statement as to Marks, these words didn't you, page 55 "Save those that appear in his report"?

A. Yes.

Q. You interlined those after Mr. Sangster had been cross examined here as to his conferences with Prof. Marks?

A. I had no reference to that.

Q. I didn't ask you that, you interlined those after Mr. Sangster had been cross examined as to conferences with Marks?

A. The whole page was written after that.

Q. How long after that was it you went on the stand?

A. Well I don't remember, I think the night before I did this I stayed up practically all night the night before that and I didn't hear Mr. Sangster's 1st day's testimony at all, in fact I was not in the room all the time of Mr. Sangster's testimony, I was in my hotel working.

4049 Q. That is not answering the question.

A. I have not read his testimony either.

Q. As a matter of fact, that was interlined after Mr. Sangster testified as to conferences with Prof. Marks with reference to the books was it?

A. I don't know. I didn't even know he had testified about it, didn't know until this minute.

Q. You were a little previous when you said a few moments ago the whole thing was written after Mr. Sangster gave that testimony?

A. In my testimony as a whole I have several times said portions were written in Chicago.

Q. Answer the question please.

A. I never did say all this was written after Mr. Sangster testified.

Q. What I want to get at is this how came you to say a few moments ago very quickly this entire page was written after Mr. Sangster went on the stand to testify when you had no knowledge about it.

A. Because I started to answer the question before I realized what you asked about his testifying in regard to this matter. It was written after he went on the stand. I should have waited until your question was through. I answered too quickly.

Q. It is true is it not that these words several times that appear in the report, page 55 were interlined after Mr. Sangster testified as to his information furnished Dr. Marks?

A. I don't know what he testified and it had no reference to Mr. Sangster but I heard Mr. Marks testify. I didn't hear Mr. Sangster and I recall Prof. Marks had said something about some things he had furnished and I do know now too I was present when

4050 this table page 75 was first introduced.

Q. You have volunteered a statement here you were present when Prof. Marks produced his totals?

A. Yes.

Q. Given on page 75 of his exhibit?

A. Yes, that last table.

Q. What do you mean by produced his totals?

A. He said I have just gotten some totals, I want to show you some thing that will surprise you, come up to my room after dinner I want to show you something.

Q. He had then the totals appearing on page 75?

A. In the last table, he had 1,700,000 and 1,401,000.

Q. Now what he gave that he first learned from Mr. Sangster, have you any personal knowledge about that matter?

A. Mr. Sangster came in at the same time as these figures were read off, and Mr. Sangster—

Q. I didn't ask for a conversation. I want to know whether you were there with Prof. Marks at these various times Mr. Sangster gave him this information so that you can say of your own personal knowledge when Marks first learned what the books show.

A. No.

Q. You just volunteered this and you say Marks for the first time learned from Mr. Sangster?

A. Yes, I volunteered it to corroborate what I thought was the position that had been in doubt that this table was the result of Mr. Sangster giving him figures and I happened to be present when I believe that each side learned for the first time the others' figures.

Q. You just put that in there to take care of Marks' estimate?

A. I thought it corroborated him because a remark was made at the time the figures—

Mr. GUERNSEY: I object to your putting in these remarks where you have stated yourself you do not know and have not personal knowledge and the record shows you could not have.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

4052

Tuesday Forenoon Session.

SEPTEMBER 26, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

Prof. EDWARD W. BEMIS, continuing his cross examination, examined by N. T. Guernsey, Esq., testified:

The WITNESS: On page 85, where the population was given of Massachusetts cities and suburbs applied by the several companies, in the second column a mistake of no consequence of 40 appears in the population of Lowell: where I gave 107,135 it appears to be 107,095 as the population of Lowell and suburbs in 1905. And Springfield, in the same column, where I have 85,000, it should be 85,400. The total in that column which appears as 713,482 should be 740,742. That changes the average on that table from 101,926 to 105,820. In the last column of the same page Lawrence population given 100,170, make it 110,170, and Lowell which appears here 118,575 should be 118,515. The total which appears here as 855,404 becomes 865,344, which changes the average from 122,201 to 123,621. The total effect is insignificant, but I want to make it as correct as I can. On the next page in the per capita for the last column for Lawrence where it appears 4172, change to 3793; and Lowell where it appears as 4830, change to 4841. The last line per

capita in the middle column for 1905 which appears 3624 becomes 3489, and for 1910, where it appears 4639 it becomes 4586. None of these figures effect any tendencies at all; they are almost insignificant, but as I said, I wish to have them as near correct as I could. On page 89, the operating expenses for Cambridge in 1905 should have been 284,956 instead of 290,956—subtracting 4053 residuals I copied wrong. Fall River which is here 223,232 should have been 284,956 instead of 290,956—subtracting total from \$1,709,314 to \$1,702,314, and the average is changed thereby from 66.1 cents to 65.8. In 1910, the last column the figure for Lynn, which is given as 286,907 should be 287,242; and Worcester which is 339,442 should be 339,378, and the total remains unchanged. It does not change the total except the last figure 159 should be 158. I had used the wrong figures in dictation, I think. Those changes do not amount to more than one per cent in the result and do not effect the fundamental tables at all, or the teaching of these tables, but are merely minor inaccuracies, and I wanted to correct them.

Q. Have you now corrected all the errors of your report?

A. As far as I have been able to verify, I have not found any changes in the fundamental tables that were not made on direct examination.

Q. Now, Professor, did you give to the Register & Leader the report of your examination yesterday that appears in this morning's paper?

A. No, he asked me one or two questions about some figures, which I gave him.

Q. You did give out an interview then?

A. I was asked some questions about some figures; I didn't give an interview—

Q. You did give out an interview for the paper about your testimony yesterday?

Mr. BYERS: I submit that the witness has just told you what he did.

Q. Did you send for the reporter?

A. No, sir; I did not.

4054 Q. Have you made it a practice to give out interviews to the papers here during the progress of the trial as to what was going on?

A. I think that is the first time I have talked to a reporter and that was only to answer the question regarding some figures; that is the first time I have talked to a reporter about the evidence. I won't say that the reporter has not asked me a question or passed a word.

Q. On page- 59 and 60 you take up some Massachusetts figures?

A. Yes.

Q. The purpose there is to argue from the Massachusetts figures that the results which you claim here are reasonable, isn't it?

A. Yes, they tend to confirm it. I do not use them as an absolute

guide to anything; the real test of course is conditions in Des Moines; but I use these in comparison, so I would say yes.

Q. That is the purpose, it is to confirm or corroborate the reasonableness of your conclusions by comparison with Massachusetts?

A. Yes.

Q. That is the general scope of the argument on these two pages?

A. Yes.

Q. Now, let us see about some of the details. In the first place I want to call your attention to a little thing here which perhaps is not very material. You say about the middle of the page, it would hardly be fair, however, to compare that with the assets of the Des Moines Company, which I have found to be 1,666,215 December 31, 1910—

A. That should have been average for the year instead of close of the year.

Q. I *aher* not finished my question; that wasn't what I 4055 proposed to ask you—if you will just wait until I finish the question. In the first place you have not attempted to find the assets of the Des Moines Company anywhere; you have been dealing with the testimony of other people as to investment and things of that kind?

A. Yes, cost as shown by the books.

Q. So that assets is an inaccuracy there, is it not?

A. Should be the cost as shown by the books in the two companies.

Q. And assets is an inaccuracy?

A. It probably is as regards Des Moines. It is the term used in Massachusetts.

Q. You are talking about the assets of the Des Moines Company; that is an inaccuracy, isn't it?

A. I think it is.

Q. You say you found them to be 1,667,215 December 31, 1910—that is another inaccuracy?

A. That should be taken in connection with what I just said, as the book cost.

Q. That is not then the amount on that date as you find it, taking the book cost with the various modifications that are made to it by Mr. Hall, is it; that should be 1,727,675.68.

A. That is what I said; that should be at the end of the year; it should be one million, seven hundred *utenty*-seven thousand.

Q. So that this statement here is an inaccuracy?

A. Yes.

Q. Now these Massachusetts plants are coal gas plants, are they not?

A. They are all mixed coal and water gas, with the exception of Fall River; it is possible that one or two have no water gas; but most of them, and I think all are mixed coal and water gas, with the exception of Fall River; that is all water gas.

4056 Q. Have you the report of 1910 of the Massachusetts Commission?

A. I left it in my room; I have it there.

Q. Now on the page you referred to, the page marked CXCIV of

this report of the Massachusetts Commission for 1910, I find table two headed as follows: "The following table shows the amount of gas made and the amount bought in the years ending June 30, 1910, and June 30, 1909, the amount sold by meters and public lamps in both these years; the amount used at works and offices, with the amount of gas unaccounted for during the year ending June 30, 1910, and the percentage of unaccounted for gas in both years." Then the heading coal gas and under that head each one of these companies that you refer to is included, is it not.

A. I don't recall now.

Q. Well, will you look and see? (Report is handed to witness.)

A. Yes.

Q. So that by the Massachusetts Commission these plants that you have used for the purpose of comparison are classified as coal gas plants?

A. That does not mean that Fall River is not exclusively water gas. They use the term coal gas as distinct from oil gas. I can show you on another page there—

Q. All right; I haven't asked you to give a demonstration. Now, then, is there anything in this report that shows the proportion of coal gas, for instance, manufactured at Cambridge as compared with water gas?

A. Not in my report; it is in the Massachusetts report.

Q. Have you gone over these figures so that you are able to tell us to what extent these companies are engaged in manufacturing the same kind of gas that is manufactured here?

4057 A. No, because it was immaterial; I did once, but I don't remember now what it was.

Q. So that we have nothing here to enable us to tell whether Cambridge, for instance, made 90 per cent coal gas and ten per cent water gas, or ten per cent coal gas and 90 per cent water gas?

A. No.

Q. You have, however, compared, not only assets, but what you call operating expenses?

A. Yes.

Q. Based on the manufacture of different kinds of gas?

A. Yes.

Q. And without any attempt to distinguish or give the court any idea as to how much water gas was manufactured by any plant?

A. That is right.

Q. Now turning to your table on page 60, you head your second column, "Amount of Assets", that is not true is it; that is misleading, isn't it?

A. I believe it is so reported in the Massachusetts report. It is correct if the Massachusetts report is correct.

Q. Is it true as a matter of fact, or is this simply capitalization?

A. No, it is not capitalization. It is what is called assets. Their capitalization is a different matter, also referred to in my text.

Q. Now, then, I wish you would turn to Cambridge.

A. I am sorry I did not bring my report with me.

Q. I wish you would get it; we cannot get along without it.

(Report is sent for by witness.)

Q. Take this duplicate copy; I didn't know we had that. Now take Cambridge, for instance, and give me the page in the report, the 26th annual report, these figures on page 60 are based on.

4058 A. Yes.

Q. Give me the report and the page in this annual report of the Board of Gas and Electric Light Commissioners of Massachusetts from which you got your statement of assets there?

A. It is the appendix, that is the page with Roman numeral 28.

Q. Now, then, what items do you take to get the assets?

A. Everything in that head of assets in that report.

Q. That is, you begin with real estate?

A. Yes.

Q. Now the sales of the Cambridge plant are 670 million, roughly?

A. Yes.

Q. That is quite a little more than the sales of the Des Moines plant?

A. Yes.

Q. What do you find the real estate to be in the Cambridge plant?

A. \$374,379.05.

Q. What do you allow the Des Moines plant for real estate?

A. \$1,727,000, which is as in Cambridge, what it paid for it—

Q. I asked you what you allowed the Des Moines plant for real estate?

A. What the books show. Then I testified I had not been able to separate Mr. Hall's report in the land entirely distinct from some other things and so I did not know how much was land in his total.

Q. Will you turn to page 21 of Mr. Hall's report and see if you can get information about that there?

A. On page 21 of Mr. Hall's report there is a figure of real estate \$35,765.26.

Q. Now that is in his total column and that is the only real estate item in the total of \$1,727,675.67, isn't it?

A. I don't know.

Q. You don't know. Can you find any other real estate item there?

4059 A. Not under that heading.

Q. Can you find any other heading that in your judgment could properly include real estate; would you think it would be under office furniture?

A. There might be some under Valley Junction property.

Q. But we are talking about Des Moines?

A. Well, it was all included in the \$1,727,000.

Q. Can you find any other item there that would properly in your judgment include real estate?

A. No, I would not think any properly included. He took the books as he found them; I don't know what is on the books.

Q. Well, Mr. Hall testified as to what he testified to and you are testifying from his report?

A. Exactly.

Q. Was that the basis in this report, the amount of real estate in Des Moines \$35,765.26?

A. Yes.

Q. Now, if we adopt the Massachusetts companies as a basis for comparison, would you say that was very low, taking Cambridge for instance?

A. Based solely on that it would be low; \$55,000 would be low, as far as that particular point is concerned.

Q. Well, now then what is the next item?

A. Cambridge?

Q. Yes.

A. Machinery and manufacturing appliances.

Q. That runs what?

A. \$1,300,670.99.

Q. Now, then, how much do you allow us in Des Moines for the plant which has a smaller output for machinery and manufacturing appliances?

4060 A. This item at Cambridge appears to include holders; therefore they must be included here.

Q. Where do you get that information?

A. In looking over Cambridge, assets, page 28 of the appendix, the holders are not separately mentioned, therefore they must be included in the machinery and manufacturing appliances, I believe.

Q. That is an inference of yours, isn't it?

A. The same inference as you were making a minute ago.

Q. What do you allow us for machinery and manufacturing appliances—then we will argue it later on, if you want to.

A. The items of Mr. Hall's report on page 21, aside from holders, the old gas works, \$25,000; gas buildings and machinery \$252,104.73; water gas plant \$27,903.06; that appears to be all under that direct table.

Q. This roughly is \$305,000 isn't it?

A. Yes.

Q. Now will you add the holders to that?

A. There are three holders at the top of the page aggregating \$88,000 and one at the bottom of the page \$120,000—\$208,000.

Q. That would make \$513,000 altogether?

A. Yes.

Q. That is a figure you made up for me yesterday somewhere?

A. Yes.

Q. So that we have, assuming your construction of the Massachusetts report here for Cambridge machinery and manufacturing appliances, \$1,300,670.99, against \$513,000 for Des Moines?

A. Yes.

Q. Now, then, take you sales in Cambridge and call them 670 million, that would be; how much a thousand have you in
4061 Cambridge for machinery and manufacturing appliances?

A. It is a division.

Q. Just about two dollars?

A. About two dollars.

Q. And you have in Des Moines for machinery and manufacturing appliances about one dollar?

A. Yes.

Q. So that you use the Massachusetts report here as a basis for comparison and you find that the estimate that you put on the Des Moines machinery and appliances is only about one half of what is shown by the Massachusetts report?

A. Yes. There is an explanation for that.

Q. Well, I am taking your comparisons; you did not put in any explanation here, did you, in this argument of yours; you just fired these totals at us?

A. I spoke somewhere here that I took account of the fact that most of these were coal gas plants which cost more at the works than water gas.

Q. Does that mean on account of the dissimilarity of the process they are not available for the purpose of comparison?

A. The comparison is all the more unfavorable to Des Moines in consequence when you take the aggregate.

Q. Does that mean that on account of the difference in conditions these Massachusetts plants are not available for comparison with Des Moines?

A. In some respects they are; in some they are not.

Q. You simply took the aggregate. Now take street mains and services; how much do they amount to in Cambridge?

A. \$615,847.95.

Q. How many miles of main have they there?

4062 A. That is given in another page of the Massachusetts report.

Q. And also how many services?

A. The meters are given; I am not sure that the services are given. As to mains, the figures are given on page 210 of the Massachusetts report 153 miles.

Q. 153 miles?

A. Yes.

Q. Will you give us the number of services, if you can?

A. I have not noticed the number of services, but the number of meters I think is given on page 213, as 26,560.

Q. 26,590?

A. This copy says 26,560.

Q. Now, then, passing the mains for a moment, how much is the average cost or value per meter which you allow us here in Des Moines, taking it roughly—we can turn to page 21?

A. I think I can tell it right here in a second.

Q. All right. I don't care where you get it as long as you get it approximately right.

A. The sales per mile of main were you asking?

Q. No, the cost per meter. You find on page 21 meters are 187 and some odd dollars for about 20,000 meters?

A. Yes.

Q. That would make \$9 and a fraction per meter?

A. Yes.

Q. Now, how many meters are in Cambridge—you gave \$26,560?

A. Yes.

Q. What would that amount to at \$9 per meter?

A. \$239,040.

Q. How much did you put in for meters in getting at the assets at Cambridge?

4063 A. Whatever the report gives.

Q. Well, tell us what it is in dollars?

A. \$91,273.

Q. That is about \$150,000 less than the meters would cost without any overhead at present prices, isn't it?

A. Of course, one doesn't know the average size of meters in Cambridge. I think there is data here for getting it.

Q. That don't answer my question. That is about \$150,000 less than the meters would cost without any overhead, isn't it—not exactly \$150,000—\$149,000?

A. If you assume that the meters in Cambridge cost \$9 on the average.

Q. If you are to use this for the purpose of comparison, must you not assume there is some similarity?

A. Yes, in some respects.

Q. Didn't you assume here, indirectly, when you compared this with the Des Moines plant, that there was a similarity in conditions that would make that comparison worth something?

A. Not for a single point; the whole seven companies.

Q. Well, do you think if the details are not at all similar, any similarity in the aggregate would be more than an accident as I call it, or a coincident?

A. I think there are many lessons from these figures that can be drawn. I did not make any very close connection with the capitalization except in the aggregate. Now Cambridge has more allowance for meters and far more for lamps than even you claim to be the value here.

Q. Now I want to go back to the street mains and services; the services as they are estimated by Professor Marks run how much?

A. He gives the meters in use.

Q. No, services we are talking about?

4064 A. House services?

Q. Take all of them, house and street lamps.

A. About \$231,000. The figure I was using is on page 75.

Q. House services are \$274,720, aren't they?

A. I took the next two lines. \$274,720.

Q. And the street lamp service is \$18,634.

A. Yes.

Q. That by the way runs what?

A. \$293,374.

Q. Now what does he make the cost of mains?

A. \$652,947.

Q. So that the services run a little over 40% of the mains?

A. Yes.

Q. Now assume that the same proportion is true in Cambridge and we have there for mains and services \$615,847 in the aggregate, have we not?

A. Yes.

Q. Now if the services are 40% of the mains, taking them roughly,

as the basis of Professor Marks, will you divide \$615,847 in that proportion, into mains and services?

A. It would be about \$432,000 for mains and the balance or \$183,000 for services.

Q. Now, then, how much would that \$432,000 for mains give us as the average per mile of main in Cambridge; they have 153 miles?

A. About \$2,800.

Q. Would that pay for the pipe, let alone the work of putting it in the ground and all that on the average price per ton here for the last five years?

A. No, it would not.

4065 Q. It would not, would it?

A. No.

Q. Do you think then that this figure here fairly represents the value of those mains there, so that you can legitimately use it as a basis for comparison with the valuation you are giving here in order to sustain these valuations here?

A. Not for mains alone, no.

Q. Do you think that the meters represent a fair basis for comparison as given here in this report in meters?

A. I do not claim any one item alone does.

Q. Can you find any item that does?

A. I have not tried to.

Q. Now, then, can you?

A. I don't know.

Q. Will you try please and let me know whether in Cambridge here in the physical property you can find any item that in your judgment is a fair basis for comparison with a corresponding item in Des Moines?

A. I have not sufficient data probably to be able to make a definite and close comparison.

Q. I did not ask you that. I asked you whether you would look at the items of the physical property in Cambridge and tell us whether you can find any item there which in your judgment affords a fair basis for comparison with a corresponding item in the Des Moines plant?

A. I will say in advance, I probably could not; some would be higher and some would be lower.

Q. Will you look without saying in advance and tell us whether you can find any item in the physical property in the Cambridge plant as shown by this report, which in your judgment affords
4066 a fair basis for comparison with a like item in the plant under discussion here?

A. No, we covered it all here. Some are too high and some too low.

Q. So that there isn't any item in your judgment as shown by your report as to the physical plant, which would afford a fair basis with a like item in the Des Moines plant?

A. No, I wouldn't attempt to make it.

Q. Will you please add up the physical items and tell us what the working capital amounts to?

A. I couldn't tell that.

Q. Will you add up the physical items and tell us what it is; I want to find out how much of their total assets are in assets other than the physical property?

A. Will you tell me how far down you wish me to add?

Q. Don't you know what are the physical items?

A. Certainly.

Q. You know what items here represent the physical property?

A. Of course, technically, coal is physical property as much as meters; but I think you mean the plant.

Q. I accept the correction. Take the items that show the investment in the plant and mains and services and meters and real estate which make up what we have been calling here for the last two or three months the physical plant?

A. The first five items appear to be all covered by that head, and amount to \$2,386,948.33.

Q. Now, then, will you deduct that from the total assets and give me the balance?

A. Just a minute—\$280,087.74.

Q. That is the amount that this company had actually invested in current assets?

4067 A. No, probably not; their investment is put down here as \$30,631.54. I think their investments probably in outside undertakings, their real estate perhaps—

Q. Then that would leave us about \$250,000 in current assets of that Company at that time?

A. I think that is probably right.

Q. Now let us turn to the next one here and see whether that affords a better basis for comparison—Fall River. On what page shall I find that?

A. Pages 52 and 53 of the appendix of the Massachusetts report.

Q. Now then, what do you find there for real estate?

A. \$259,676.21.

Q. Of course that is not comparable with Des Moines?

A. No, that is larger.

Q. Now then, your machinery and manufacturing appliances are what?

A. \$383,870.34.

Q. Now that company has an output of about five hundred million against an output of 670 million for Cambridge?

A. Yes.

Q. And has between a third and a fourth as much investment in machinery and manufacturing appliances?

A. Yes.

Q. And shows that you cannot compare these things?

A. That item alone does not, because Fall River is all water gas and the Cambridge plant is coal gas.

Q. That would make a difference, would that, of about one million dollars?

A. It is a difference of 20 or 30 per cent in the output.

Q. That would make a difference of a million dollars?

4068 A. Not necessarily; there may have been some difference in the holders; a coal gas plant may have and often does have a larger reserve.

Q. You think these factors would account for a difference of about a million dollars?

A. It would account for at least a part of it.

Q. What I want to get at, whether you are willing to say that it is your judgment, the matters you mention would account for a difference of about a million dollars?

A. I can't say precisely.

Q. Will you say it would account for half of it?

A. Oh, yes.

Q. You can't say positively without taking some basis for it and give us the items?

A. No.

Q. Well, then, give us the items and let us have the basis; do you know what the Cambridge plant has in the way of manufacturing apparatus?

A. There is some data here——

Q. I want to get at what information you had for your very prompt and positive "Oh, yes" there?

A. I know it is, considerable over half is coal gas and Fall River is water gas.

Q. Do you know what the Cambridge plant has in the way of manufacturing appliances?

A. I don't know now.

Q. Do you know what its manufacturing apparatus cost?

A. I am not now familiar with it. I have looked it over in the records of the commission.

Q. Do you know what it has in the way of holder capacity?

A. I don't know.

4069 Q. Do you know what the Fall River plant has in the way of manufacturing apparatus?

A. I don't remember now, except mostly water gas.

Q. You don't know what it cost?

A. I haven't it in mind.

Q. You don't know whether you ever knew what it cost, do you?

A. I have looked over all these returns of cost, but I don't remember now what the figures are.

Q. How recently have you looked that over?

A. Some months ago. The last time I was in Boston I got some data, but I did not look at that fully; I had copied for me the complete return of last year; but it was the year before that I went through the cost data.

Q. Of course that wouldn't run down to 1910, the date of this report?

A. No.

Q. Do you know what their holder capacity is?

A. I don't remember.

Q. Do you know what additions they have made to it in the last year or two?

A. No.

Q. Without any of this information can you say that the fact that the Fall River plant is a water gas plant, while the Cambridge plant uses coal gas as well as water gas, would account for this difference of a million dollars or about one million we have been referring to?

A. I say, it would account for a large portion of it.

Q. Would you say it would account for half of it without having definite figures?

A. I believe it would.

(Last question repeated.)

4070 A. I believe it would.

Q. That don't answer my question. Can you say it would account for half of it without having definite figures?

A. I have enough figures in my mind of such plants to give a preliminary estimate; I should not want it to be final without knowing more about it.

Q. How do the figures do you any good if you don't know what the apparatus is to which you must apply them?

A. In this particular case I should have to fall back on my general knowledge of the difference of cost in coal and water gas plants until I had made more definite studies.

Q. What is the difference in costs of coal and water gas plants?

A. At the works it varies. Of course coal gas works generally cost from 50% more per thousand feet capacity than water gas.

Q. That is the manufacturing plant?

A. Yes; that would include holders—

Q. Fall River cost \$383,870, for machinery and manufacturing appliances; then for a coal gas plant it would cost about 190 thousand more?

A. Usually the figures are nearly twice as much; from 50% to 100%.

Q. Your two answers vary 100%; you said first about 50% and said just now 100%; where did you get these figures?

A. My recollection on that particular point was, thinking at the moment, of the many appraisals made by the man who had been with Bartlett-Haywood & Company for a great while and valued all the plants of the Consolidated Gas Company; both coal and water gas in the Consolidated Gas case. That is one of the things I had in mind, and then I have had many other appraisals in cases in which I have discovered a very great difference of cost between coal gas and water gas plants.

4071 Q. So that if we bring you in the record in the Consolidated case, you can show us the figures that verify this statement, can you?

A. I think so. Myers is the man I am trying to think of.

Q. It was another man?

A. No, the same man; I said he had been connected with Bartlett, Heywood & Company and connected with the Consolidated Gas to make their appraisals.

Q. Now, I wish you would give us the figure here on Fall River for mains?

A. Mains \$403,382.69.

Q. Now what is the figure for services?

A. \$47,262.86.

Q. Now that of course is absurdly out of line, that cannot represent the value of the services, can it, if the other is anywhere near that value, of the mains?

A. I am looking for the number of meters.

Q. I will give you the number of services, 20,540; so that would be an average of only 2.36 roughly for services?

A. The services would be very short in Fall River. As I remember the city is in a closely built factory town with narrow streets and these great tenement blocks abutting on the sidewalk. It is possible also that the company does not charge for the services inside of the lot line.

Q. You also know, do you not, that there is a great deal of rock encountered in Fall River and makes this work expensive?

A. I am not familiar with the rock in Fall River.

Q. One would necessarily have to be in order to make an intelligent comparison here?

A. Yes, one should.

Q. And they have 117 miles of main there at \$403,882.69; 4072 that would give us between \$3,400 and \$3,500 a mile?

A. I should think so; I will take your exact computation.

Q. I haven't taken the exact computation; I make mistakes. That of course is less than the main cost, especially if they have difficult excavation.

A. Yes.

Q. So that we could not accept this figure as a fair basis for comparison, could we?

A. They may have written out from those assets for depreciation. It is quite likely in all those companies, in some of them at least, that they will write off from the first cost of assets when they charge off depreciation.

Q. But that don't answer my question.

(Question repeated.)

A. It might be; it is not certain that you could not, but you should have to look into the matter further.

Q. We would have to look into it a good deal further before we could base any conclusions on it and have any confidence that they were based upon correct premises?

A. We would have to know the average size of the mains there as compared with here; we would have to know several things before we could get anything precise. Let us see for a moment if these amounts are an average six inch, which we do not know, but suppose they were, and suppose we took 75 cents as the average cost per foot—5,280 feet per mile, it would be \$3,960. per mile. Your figure was about \$3,450. It would be about 12% higher.

Q. And this 75 cents is also based on conditions which include no difficult excavation, is it not?

A. It includes such conditions as exist out here; I don't know what they are in Fall River.

4073 Q. So that we do know this; we know that the cost of mains here is apparently too low, don't we; not absolutely, but apparently, basing it on what we do know about conditions?

A. No, because I say, this depreciation I believe had been written off in Fall River; in old cities the mains have been in a good while.

Q. Not over a hundred years or so?

A. Oh, no; the city is older than that, but the mains are not.

Q. This don't represent then the cost anyway, it represents some thing depreciated?

A. Yes, I understand that is true of all of these assets.

Q. Then you are comparing what? Are you comparing depreciated assets or undepreciated assets?

A. I am comparing your undepreciated assets with other depreciated assets. If I depreciated yours in the \$240,000 from \$1,727,000 down, it would make your figure nearer theirs.

Q. In other words, you take our undepreciated assets as you find them, or our undepreciated book cost as you find it, and you compare that with their depreciated assets and you find that ours undepreciated runs radically under theirs depreciated, don't you?

A. I do, except in the case of Fall River, which is the only water gas plant.

Q. So that if we were drawing any conclusion from this what would be the natural conclusion from the fact that undepreciated assets run lower than depreciated assets?

A. Your \$3 would be compared with their \$3.50 and then you would have to take into account the fact that this was a water gas plant.

Q. I am assuming these things are comparable, as you do
4074 in your report; assuming they are comparable, you found our undepreciated figures as found by you were less than their depreciated figures; would that tend to show you it had been too high or too low?

A. I think my depreciated figures were about \$3. Their depreciated figures were about \$3.50.

(Last question repeated.)

A. No, it wouldn't show anything without that further fact was taken into account.

Q. Then do you mean to say the figures you give on page 60 do not show anything?

A. They are only taken in connection with the text and have some bearing on the question, as showing the reasonableness of my \$3 figure.

Q. Let me put this in the concrete. Suppose your figures show that an undepreciated plant in Iowa cost one million dollars, say twelve hundred thousand dollars, I'll make it, and then your figures show that a like depreciated plant in Massachusetts, like plant, but

the depreciation charged off, cost fourteen hundred thousand dollars—I have added a six there—that would rather indicate that your Iowa figures were low if they indicated anything?

A. Taken by itself they would.

Q. Let us go to one other factor in Fall River. Will you add the first five items there?

A. \$1,199,995.29.

Q. Now will you deduct that from the total there and give us the current assets of this plant?

A. \$235,590.89.

Q. Now there is one item here that should be deducted, I think, to make a comparison fair with the Des Moines plant; the first five items do not include office furniture, apparently, which amount to \$2,446.18; will you deduct that from your balance so as to make the exact comparison?

A. \$232,942.71.

Q. So that is the amount which that plant had invested in current assets at that time?

A. Yes.

Q. Now let us turn to the next one, Lawrence. What page will I find that?

A. Pages 76 and 77.

Q. Before we leave that, these current assets of the Fall River plant amount to about forty-one cents a thousand instead of thirteen, don't they; the sales are 495 million, roughly?

A. I make it forty-seven cents.

Q. Forty-seven cents?

A. But instead of thirteen, I don't know the relevancy of that.

Q. We pass to the next town now, Lawrence. That you said was on page 76?

A. Yes.

Q. That company is engaged in what business?

A. Gas and electric.

Q. Well, now, how did you get your assets there, as you call it, \$2,032,593.

A. I added everything that appeared by its title.

Q. Give us the items, will you please?

A. It is everything in the column of assets down to and including gas fixtures, tools, etc., on hand. Then I in a similar way added up for the electric the remainder of the column, and on the next page through the second line. Then I found what relation one total of ascertainable assets bore to the other and applied that to the horses, wagons, sundry accounts, office furniture, cash on hand, notes receivable, insurance, office building and investments and assumed that these could be apportioned between the two properties in the proportion in which the bulk of the property was apportioned between gas and electricity.

Q. Now you added the first fifteen items ending with gas fixtures, tools etc. on hand, and that gave you \$1,893,945.44?

A. I haven't that figure with me, but if you find it so I will accept it.

Q. And then you added the following items down to and including—

A. Motors on hand.

Q. On the next page?

A. Yes.

Q. Didn't think that ought to have been divided between the two plants?

A. I thought the motors were electric motors entirely; I did not assume they were automobiles.

Q. Which were they as a matter of fact?

A. Well, I believe they must have been power motors, for we have horses, wagons, etc., and automobiles would naturally be included in that.

Q. And if they were motors on hand they were probably in the working capital of the electric company or current assets?

A. They may have been; but my point there was merely to divide the total investment.

Q. This \$11,280.38 ought to have been included in the figures that were apportioned?

A. No, because it was all together.

Q. All together electric?

4077 A. Yes, just as in gas I put gas fixtures on hand and gas stoves on hand.

Q. Do you know what the total of these items is?

A. I haven't that figure with me.

Q. We will call it \$1,424,871.14. Now you apportioned, did you, the balance \$242,815.94 between gas and electricity in the ratio which \$1,893,945.44 bears to \$1,424,871.14?

A. Yes.

Q. And that is the way you got at your assets, you added there \$138,647.56 as the result of that apportionment to the \$1,893,945.44 and obtained \$2,032,593.

A. I will say yes as to result; not having the figures before me I don't remember just what I had it.

Q. Now take Lawrence, for instance, they have for real estate what?

A. For gas real estate \$209,209.71.

Q. They have for machinery and manufacturing appliances what?

A. \$308,467.86.

Q. Now this is what kind of a plant?

A. Mixed coal and water gas.

Q. Now turn back to Fall River, it has pretty close about the same output, don't it?

A. The figures are given here.

Q. One is about 420 million, the other about 500 million?

A. Yes, that is the way I gave them on page 60 of my report.

Q. Fall River has for machinery and manufacturing appliances \$383,870. hasn't it?

A. Yes.

Q. That is all water gas?

A. Yes.

Q. Now, then, on your 100% basis Lawrence ought to have
4078 about double that in machinery and manufacturing appliances as a coal gas plant?

A. 177 million feet made last year was water gas.

Q. In referring to Cambridge which you said made about half and half?

A. This is about half and half.

Q. You said the cost of coal gas apparatus ought to be about fifty per cent more than water gas and then you got up to one hundred per cent?

A. I intended and I think I did say coal gas cost over fifty per cent more as compared with water gas.

Q. We are not talking about the cost of coal gas; you mean the cost of the machinery and apparatus?

A. And holder, yes.

Q. Not the cost of gas?

A. No.

Q. Now the Fall River plant seems to have here in the machinery and apparatus about twenty per cent more than the Lawrence plant, although the Lawrence plant is a coal gas plant, and the Fall River plant is exclusively water gas; don't it look to you as if there was something wrong in those figures, if they are to be taken as representing costs or value?

A. The Lawrence plant is not exclusively a coal gas plant.

Q. You told us a few moments ago it was about half and half?

A. 177 million is water gas.

Q. Out of 417 million?

A. Probably 430, perhaps made; I haven't figured it. There is no comparison can be made, but that explains some of the difference.

Q. But the difference is the wrong way, isn't it; that is a water gas plant is here put in at 20% more than the coal gas plant?

A. Now the Lawrence has put in at eighty cents per thousand
4079 and feet sales—Fall River at eighty cents per thousand and Lawrence at seventy.

Q. Lawrence won't run seventy?

A. Nearly, sixty-nine and a fraction, almost seventy.

Q. Yes, that is correct.

A. Now there is somewhat a larger capitalization or assets in Fall River, ten cents per thousand feet sales for the manufacturing plant more than in Lawrence. I have not looked into the data sufficiently to know where the difference lies.

Q. I didn't ask you that. What I want to get at is this: in view of the fact, as you have stated it, that where there is one of those mixed plants the cost of machinery and manufacturing appliances would run up to double what it would in the water gas plant, it is not safe to take for a basis of comparison statements which show a cost of the mixed plant for the machinery and manufacturing appliances running less than the cost for water gas machinery and appliances, is it?

A. No, it is only in the general aggregate of plants that you find

this difference brought out. There are all sorts of exceptions in individual plants.

Q. So that we could not take this \$308,487.86 in the Lawrence figures as a fair basis for comparison as to the cost of the machinery and manufacturing appliances in Des Moines?

A. No, I did not attempt to do that.

Q. We could not take the real estate as a fair criterion on real estate here though it happened to run pretty close to the complainant's base figures?

A. I have not attempted to do that.

Q. Now take your street mains and services, they run \$621,416.10 in Lawrence?

4080 A. Yes.

Q. That is less than these mains and services cost on the face of it?

A. I don't know. I wouldn't feel at all sure that was less than the cost, but it may have been.

Q. So that we could not say this item was comparable with a like item in Des Moines?

A. No.

Q. And couldn't base any comparison which we could rely upon as affording trustworthy conclusions on this item without going further?

A. No.

Q. Now take meters, the number of meters in Lawrence is what?

A. The number of meters in Lawrence is shown on page 214 of the Massachusetts report is 18,763.

Q. Now what do they put down for meters.

A. \$144,087.96.

Q. Now that is lower on the face of it than the cost of meters could be in Des Moines, isn't it?

A. It is somewhat lower than I think meters cost new here, taking into account the sizes and grades used—the number A meters and prepayment meters.

Q. So that we could not base a comparison on that item?

A. No, not knowing more about the meters at Lawrence.

Q. Now will you take the items here that represent the physical property, that is in the manufacturing plant and distribution system and give me the total of them so that we may get our current assets?

A. You gave them to me a little while ago as \$1,893,945.44 exclusive of what might be called fluid assets?

Q. That covers gas, materials and supplies on hand?

4081 A. No, that figure you gave me was to the first items on page 76; you had added it up.

Q. Add these five items and you will find I am wrong?

A. Oh, yes; I thought you was asking for all those eleven items; you want the first five items?

Q. I want the first five items that cover the manufacturing plant

and distribution system and do not include any working capital and I gave you that figure also as \$1,741,166.65?

A. I will take it.

Q. Now will you deduct that from your total assets here so as to give us the amount of the current liquid assets in that plant?

A. The total is given on page 60 of my report as \$2,032,593. which is \$291,426.35.

Q. That includes some office furniture, doesn't it?

A. Probably.

Q. About half of that \$5,580?

A. Yes.

Q. Suppose we deduct \$3,000 for that?

A. Then it would be \$288,426.35.

Q. That is how much per thousand feet of sales, roughly?

A. About seventy cents.

Q. Now where will I find your figures on Lowell?

A. On page 85 of the Massachusetts report.

Q. Now how much does Lowell have for real estate?

A. \$1,253,091.65.

Q. Now do you think that is comparable with \$35,000 and some odd dollars in Des Moines?

A. No.

Q. Now, what is the output of the Lowell plant?

A. 573,672,700.

4082 Q. What does it have for machinery and manufacturing appliances?

A. \$139,612.39.

Q. That is a combined coal and water gas plant, isn't it?

A. Yes.

Q. Do you think comparing that with what we have for machinery and appliances here in Des Moines, we can aid ourselves any?

A. That is as much lower in yours as the land is higher.

Q. Of course, this \$139,612.39 does not represent cost or value?

A. That probably represents cost less what they have written off.

Q. It would be absurd to suggest it represented their cost or value?

A. Yes.

Q. And therefore absurd to make any comparison as to cost or value predicated upon it?

A. Yes; it is based for rate making use in Massachusetts.

Q. That is the basis you have been advocating?

A. No, I have not applied that basis to this city at all.

Q. Is it true this is the basis for rate making in Massachusetts?

A. The basis can hardly be said to be any factor.

Q. They take into account values not assets?

A. They primarily take into account investment less what has been written off.

Q. Now then take the street mains, services and meters, what do they amount to?

A. In Lowell \$239,990.92.

Q. That is another joke?

A. They have written off a great deal evidently.

Q. As far as that has any bearing on value it is simply a joke?

A. It is much smaller than the present cost of the plant of course.

Q. They have how many meters in Lowell?

A. On page 214 of the Massachusetts report the Lowell meters are given as 20,577.

4083 Q. That is about the number of meters in Des Moines?

A. Yes.

Q. Now then, Professor Marks, on page 75 of his report, if I have made the addition correctly, estimates our meters, \$220,298. Now that would leave how much for mains and services in Lowell if you took it from the \$239,990.92?

A. 19 or 20 thousand.

Q. Lowell has 167 miles of main?

A. Yes.

Q. It would be absurd to base any comparison of figures on that, would it?

A. Yes, just as it would be on the land; the land is enormously over that.

Q. You told us a while ago the Massachusetts reports represented the actual cost of the land to the companies?

A. I believe so. I do not believe they ever write them up for rise of value any more than they do paving or going value.

Q. You couldn't resist the temptation, could you?

A. No.

Q. Now, will you in this case take the total of these first three items and deduct it from the total assets so as to give us the amount of current assets?

A. Those three items are \$1,632,694.96; that deducted from the total of \$1,895,746.56 leaves \$263,051.60.

Q. Now let me ask you this before I forget it: These current assets in these reports wouldn't be subject to the criticism that we have directed against the reports as to the fixed assets, would they, for instance, take the due for gas you would expect that to be accurate?

4084 A. Yes.

Q. All gas and coal on hand you would expect to be accurate?

A. Yes.

Q. You would expect all this amount to go into the current assets to be the actual facts?

A. Yes, there are by the way investments \$85,738.95 which deducted \$2,263,051.60 leaves \$177,313.35.

Q. Now then that would amount to how much per thousand feet of sales?

A. About thirty cents.

Q. Let us see what Lynn has to show; that is on what page?

A. The next page, 86 of the Massachusetts report.

Q. That is a mixed coal and water gas plant, is it not?

A. Yes.

Q. Now the real estate is what?

A. For gas \$393,462.85; on the machinery and manufacturing appliances \$525,986.32.

Q. Now neither of those could be properly taken as a basis for comparison with the corresponding item here in Des Moines?

A. No. It has not been done and I wouldn't do it.

Q. Now, then, where are the meters and services in this Lynn statement?

A. The meters are given here \$87,359.29.

Q. Where are the services?

A. I don't see them by that name; I assume they must be with the mains but I cannot prove it.

Q. Well, let us take the mains, they are given as what?

A. \$410,373.87.

Q. There are in Lynn 141 miles of mains?

A. If you say so, I may accept it without trying to verify it.

Q. That is my memorandum here; if there is any question about it, I want you to verify it?

A. I assume of course it is correct.

Q. I hope it is.

A. I will verify it. Lynn, 141 miles, on page 211, I find it given.

Q. So that taking it roughly and computing it in our heads the report here on Lynn for mains and services, they are included there, runs less than \$3,000 a mile on an average?

A. Yes.

Q. Which would be hardly enough to pay for the cast iron pipe?

A. I would say so off-hand without stopping to compute it.

Q. So that we cannot accept this figure as indicating either cost or value if we are making comparisons with Des Moines that is, the street mains?

A. No, I will say that off-hand with reference to every one of these companies, if you desire.

Q. Then the meters in Lynn are 22,792 are they not?

A. The meters for Lynn are 22,792.

Q. And the amount put in for meters here is \$87,359.29.

A. Yes.

Q. Which amounts to about \$3.83 per meter?

A. Substantially that I would say off-hand.

Q. Now, Mr. Marks' figures here amount to something like \$11. per meter, approximately, do they not?

A. I haven't computed it.

Q. I can give the total as I make it is \$220,298, and there are roughly 20,000 meters, so that would be just about \$11. per meter?

A. It would.

Q. So that here if we attempted to make any comparison, it would be predicated upon something obviously not in accord with either cost or value?

4086 A. Yes.

Q. Now then what items did you take to get the assets in Lynn—Lynn covers gas and electricity?

A. Yes; the same method as in the case of Lawrence.

Q. Well, now, will you take the total of the first five items there in Lynn which I make \$1,419,473.16?

A. I will accept your figures.

Q. Which represents the physical property as distinguished from the current assets and deduct them from your total assets?

A. There remains \$233,756; that includes office building.

Q. Yes, that is \$87,000?

A. Yes.

Q. Suppose you deduct that and then what will we have?

A. \$146,537.

Q. And with sales at 605 millions that would be between twenty-four and twenty-five cents per thousand cubic feet?

A. Yes, I should say so.

Q. Now, then, on what page can we find Springfield?

A. Page 131.

Q. Now that plant has the closest sales to Des Moines of any plant you have taken there, has it not?

A. It is about as much larger as Fall River is smaller.

Q. What is the real estate that you included in your Springfield assets?

A. It is given here as \$453,719.95.

Q. Well, that you include in the Springfield assets?

A. Yes.

Q. Of course that is not comparable with your \$35,000 here in Des Moines?

A. No.

4087 Q. What are your machinery and manufacturing appliances?

A. \$740,722.12.

Q. Now Lynn is pretty close to Springfield in the sales here, isn't it?

A. Lynn is 605 million and Springfield 568 million.

Q. A difference of only 37 million.

A. That is right.

Q. Something over five per cent?

A. That is right.

Q. Each one has the same sort of a plant, hasn't it?

A. They both have mixed coal and water gas; whether the proportions are the same, I couldn't say.

Q. And Lynn has for machinery and manufacturing appliances 526 thousand in round numbers, against 740,722.12 for Springfield?

A. Yes.

Q. And Lowell which makes 573 million against 568 million for Springfield has \$139,612. in machinery and manufacturing appliances as against \$740,722. for Springfield, doesn't it?

A. Yes.

Q. Now does that to any degree destroy your faith in the value of these figures for the purpose of determining by comparison the accuracy of the estimates of assets or investment in Des Moines?

A. It shows that even in the aggregate they only have a moderate value; that is all I claim for them; they are not conclusive at all.

Q. (Last question repeated.)

A. No; for I never had any more faith than I have expressed in them.

Q. You said a moment ago you didn't know how much Springfield was water gas and how much coal gas; if you will turn to page 208 you will find they are about equal, don't you?

A. Yes.

Q. Now, I notice that Springfield on street mains has \$583,694.49 and on services, if I read it correctly, \$19,735.74; there is something out of line in one of these figures?

A. Yes.

Q. The mere statement of the two figures shows that either one or the other does not represent cost or value?

A. I would think so.

Q. Now in Springfield there are 21,771 meters, are there not?

A. I will verify it and see—yes.

Q. So that the amount in the aggregate which Springfield puts down here for meters \$206,385.29 runs approximately \$9.50 per meter?

A. Yes.

Q. Can you imagine any possible hypothesis that could make the average value or average cost of meters in Springfield \$9.50 approximately and in Lynn \$3.82 approximately?

A. There are some different methods evidently of writing off depreciation in the past.

Q. That don't answer my question directly. Can you imagine any circumstances that would make the actual difference that I indicated in their cost or value in these two places at the same time?

A. No; other factors must account for it.

Q. It means that some of those figures do not represent either cost or value?

A. Yes.

Q. It means possibly that none represent either cost or value?

A. It is possible; that I would not at all know about.

4089 Q. That is why I put it possibly. Now, then in Springfield, will you deduct the sum of the first five items which I have as \$2,004,253.59 from the assets as you have it there?

A. \$2,247,296.31.

Q. Gives what the current liquid assets are in Springfield what?

A. \$243,042.72.

Q. Their sales very closely approximate ours?

A. Yes, about five per cent larger than last year here.

Q. To be fair, we ought to deduct from that amount the amount you gave as office furniture, \$3,551.50?

A. Yes.

Q. And that will leave you what balance?

A. \$239,491.22.

Q. That is just a little under 40 cents per thousand cubic feet sales, isn't it?

A. Yes, about that.

- Q. Now the last place you have is Worcester.
A. Yes.
Q. On what page shall I find that?
A. It is on page 157-8.
Q. Now Worcester has for real estate what?
A. \$895,136.34.
Q. That is not comparable with Des Moines?
A. No.
Q. Now it has for machinery and manufacturing appliances what?
A. \$789,336.89.
Q. And that is for a mixed water gas and coal gas plant.
A. Yes.
Q. And that is not comparable with Des Moines, is it?
A. No, because this is all water gas.
4090 Q. Now then, what has Worcester for street mains and services?
A. \$133,603.13.
Q. And how many miles of mains has Worcester?
A. 161 and a large fraction; practically 162 miles.
Q. How many meters?
A. The number of meters is 21,626.
Q. Of course that amount for street mains and services does not represent anything so far as value or cost is concerned?
A. The same remark; yes, that is right. It is like all those others I believe.
Q. And do you think, getting to your theory here for a minute, that these figures represent not cost but depreciated cost in these reports?
A. I believe so.
Q. Have you any knowledge with reference to it as distinguished from inferences.
A. Yes. While I have not had the subject under consideration for a long time, so far as I can recall it, from having been in several rate cases in Massachusetts where these matters came up, it is my understanding of it; while they write off depreciation in most of these every year, they write down these assets.
Q. Take these street mains and services, they have in Worcester 162 miles; this \$133,000 cannot represent much more than fifteen per cent of the cost of those things?
A. It would represent a small percentage.
Q. We will assume it represents fifteen per cent, what was their original cost then of the machinery and manufacturing appliances on the same basis?
A. They wouldn't necessarily write off.
Q. Would they depreciate the mains and services more
4091 rapidly than machinery and manufacturing appliances?
A. I wouldn't do it.
Q. What intelligent man who knew anything about depreciation would do it?
A. What they have done I won't undertake to say.

Q. I didn't ask you what they had done. Do you mean to say in Massachusetts they only depreciate things that do not depreciate?

A. I can't say just how they write off their depreciation; I haven't tried to in this report.

Q. Do you mean to say in Massachusetts that acting under this all-wise commission they only wrote depreciation off of mains and things of that kind that practically do not depreciate at all?

A. No; we have seen evidences in other places, that probably some of these companies wrote off from the manufacturing plant.

Q. Do they apply one rule to one company and another to another?

A. I do not know that the Commission designates how they shall write it off. I think the Commission's action is confined to the issue of securities and rates of charge. In all their reports I haven't found anything else.

Q. Have you any knowledge about it?

A. I have read every report they ever issued and have talked to them a great deal, being in at least three rate cases in Massachusetts.

Q. Do you want us to understand, aside from the Commission, it is customary for Massachusetts companies to depreciate highly that which don't depreciate and not depreciate things that do depreciate with relative rapidity?

A. No.

Q. Then, if you ascribe those things to depreciation you would have to apply the same rule to manufacturing appliances?

A. I say this particular company has written off more for 4092 manufacturing appliances. I don't say that is the rule.

Q. You take meters here, and you gave us 21,626 meters; they are put at what in your report?

A. They are put in as \$40,473.92.

Q. That is about \$1.87 per meter?

A. I would think it would work out about that.

Q. Of course that don't represent the cost or anything that corresponds to cost?

A. No.

Q. Nor value?

A. No.

Q. And no comparisons which have for their purpose anything with reference to cost or value could be predicated upon these figures?

A. No.

Q. Now let us have the current assets in this plant, the first five items which represent fixed assets there, which amount to \$1,858,550.28 do they not?

A. I will accept your addition without verifying it.

Q. And that deducted from the total assets as you give them leaves \$164,563.16 as current liquid assets?

A. I assume that is a correct subtraction.

Q. That amount- to between twenty-five and thirty cents per thousand feet of sales, does it not?

A. I will tell you in a minute. Yes, between twenty-five and twenty-six cents; nearly twenty-six cents.

Q. Now you have stated when we took this thing up, that is this part of your argument, that the purpose was, by the comparison with these Massachusetts companies to confirm the correctness of the conclusion as to the book cost of the property of the Des 4093 Moines Company; do you think that any comparison that is worth anything can be predicated upon these Massachusetts figures with reference to that matter?

A. Only to a very moderate degree, I should say, not very largely.

Q. Would you say that it was practically valueless?

A. No, not so strong as that, but not of much value. I didn't make any important use of it either.

Q. Now, I have here, Professor Bemis, two sheets which attempt to compare the Massachusetts companies with Des Moines, adjusting these items that you concede are not based upon cost or value, by taking Professor Marks' units for those items, in order to see where that would land us. For instance, taking Cambridge as an illustration, the Massachusetts figures which you took are given under the head of the word report; then under the word Marks is the Massachusetts real estate, the Massachusetts machinery and manufacturing appliances; and then the mains, services and meters are worked out upon the unit prices taken by Professor Marks for Des Moines, and the sales and assets per thousand, and miles of mains, numbers of meters and cost per meter, which means the average cost of each meter, are also given. On the second sheet are given some of the details for assistance in checking. Now will you take at your convenience these two exhibits and point out to us such errors if any, as you find in them? I don't mean errors of theory but errors of computation?

A. It is something of a job for me to go over them; I am perfectly willing to take your word that they are correct.

Mr. BYERS: We would rather have you check them over.

A. I will try to.

Q. You will do that then and let us know so that we may know there are no errors?

A. I will.

At this time and adjournment was taken until 1:30 p. m.

4094

1:30 P. M. TUESDAY, September 26, 1911.

EDWARD W. BEMIS, being continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Q. I wish you would turn to page 71. At the bottom of that page you estimate a profit of 28.65 cents per thousand cubic feet for 90 cent gas.

A. Yes.

Q. That deducted from the 90 cents which is the price leaves what?

A. I think I used the price of 90.7 in that.

Q. Deduct it from 90 cents the actual price and that leaves what?

A. 62.05.

Q. Try it again will you, 28.65 from 90.

A. Oh I took it from 90.7 which I had before me. 61.35.

Q. Now will you deduct six cents from that for depreciation?

A. 55.35.

Q. Now then that proposition of yours on page 71 involves the assumption does it not if we take depreciation at six cents that you can pay all of the other operating expenses for 55.35 cents per thousand.

A. Yes. I do not allow the six cents myself.

Q. Now the actual operating expenses with some deductions are shown at page 5 of Mr. Hall's report as they not?

A. I think that is true.

Q. And the operating expenses for an average of five years preceeding December 31, 1910, were 63.34 without any depreciation?

A. Yes.

Q. So that you have taken a basis if we take six cents depreciation that is 8 cents per thousand under the average for the last 4095 four years have you not?

A. You read for five years didn't you?

Q. For the last five years, yes I beg your pardon that was an error.

A. Yes.

Q. And that is about ten cents per thousand under the operating for 1910 on the same theory?

A. Yes, sir.

Q. And is about 7.4 cents less than the average for the four years ending December 31, 1909?

A. Yes.

Q. And it is also less is it not than the operating expenses of this plant have ever been.

A. Yes.

Q. Now did you ever operate a gas plant?

A. No.

Q. If I took your depreciation at four cents you would have 57.35 to cover your total operating expenses would you not?

A. Yes.

Q. That would be six cents lower than the average for the last five years.

A. Six cents lower, yes.

Q. And it would be about 7.8 cents lower than the operating for 1910?

A. Yes, not far from that. The operating was 65.19 and 57.35 from it would be 7.84 cents.

Q. And it would be about 50½ cents less than the operating for four years ending December 31, 1909, the average?

A. That was 62.79 and subtract 57.35 from it would be 7.84 cents.

4096 Q. And it would be about $-\frac{1}{2}$ cents less than the operating for the four years ending December 31, 1909, and it would be lower than operating cost that the company has ever experienced.

A. Yes.

Q. In the first place these figures with which I have been making comparison are with the exception of the year 1910, adjusted figures and somewhat lower than the books are they not?

A. Slightly lower, yes.

Q. Now then as you said a few moments ago you never have operated a gas plant.

A. No.

Q. Do you mean to say this plant can be operated for either 55.35 or 57.35 cents per thousand?

A. Yes.

Q. You think you know?

A. Yes.

Q. And you predicate that upon your studies of Massachusetts statistics don't you?

A. No, chiefly upon Mr. Hall's report.

Q. But you are willing to swear that that can be done in spite of the fact that you are without experience and that what you have designated here as a very competent management has never reached results?

A. Yes, to be short in my answer, I will say yes.

Q. Now of course you can't predicate your result on any actual results in the operation of the plant here?

A. I do base it upon that.

Q. No, you base it on the actual results with various deductions do you not?

A. Very legitimate deductions.

Q. I didn't ask you whether legitimate or illegitimate, I asked you if you did not base on the actual results with various deductions?

4097 A. Yes.

Q. And those deductions which you make are not predicated upon any actual experience of your own in the transaction of business of this kind?

A. No.

Q. And they involve the conclusion that this plant can be operated for a very much less than the actual cost of operation as disclosed by the books?

A. It is too broad a question to be answered without an explanation.

Q. All right then don't answer it. And you recognize the present a management as more than usually efficient and competent?

A. Yes.

Q. Now then what is the first deduction that you make from the present operating expenses to give this result?

A. In the first place I take as shown on the bottom of page 71

the net revenue that Mr. Hall had reported on page 19 of his report.

Q. I am not asking about that. I am asking the deductions.

A. I took the net revenue as adjusted by Mr. Hall on page 19 of his report as I stated on page 21 of mine, my figures there are exact copy of his.

Q. Do you know what the question is?

COURT: He wants to know what deductions were that you make from the operating expenses?

A. In getting net revenue I used Mr. Hall's net revenue, therefore used his deductions. He took out certain interest charges that

Mr. Hagenah had and certain rate adjustment expenses, that 4098 means practically rate litigation expenses. He did not take out subscriptions to charities and other objects nor did he take out the increased salaries paid to the officers here and to Philadelphia. The four year basis of course these increased salaries do not very largely appear. In the five year basis the last column they do.

Q. I don't know whether you have answered my question or not. Those deductions were made by Mr. Hall?

A. Those deductions were made by Mr. Hall and appear in the figures that I have copied I have just referred to on page 5 of his report. That is the table at the bottom of page 5 of his report shows an average for the five years of 63.34.

Q. An average for the four years of 62.79 contains these deductions doesn't it?

A. Except that those out of the four year basis used on page 71 of my report and page 19 of his and therefore is not exactly the same as he shows page 5, where each year is treated independently.

Q. He says the average for four years, page 5 of his report is 62.79 doesn't he?

A. Yes.

Q. Did you mean by your answer to my previous question that you took that figure and charged these deductions he had made in that way?

A. No, I used the deductions from that figure which he also had on page 19 and elsewhere in his report, namely, substituting the manufacturing and leakage expense of 1910.

Q. Let's go to page 19. Page 19, the lowest combination that Mr. Hall was able to get was 57.62.

A. That is the four year basis.

4099 Q. Now your combination here deducting four cents only for depreciation is 57.35 isn't it?

A. Yes.

Q. So you have gone him a few better. Now where did you get them?

A. In my table on page 71 and in the text I explained that in recaching the four year average I add the amount covered by the accidents, accident claims paid in the beginning of 1906 and also the taxes for 1910. In other words, I put into the four and five year basis not only the manufacturing cost of 1910, and the leakage ex-

pense of 1910 which is in a way you might say against the company, but also the taxes of 1910 which are in favor of the company because they were a little higher than the previous average.

— Mr. Hall put in that leakage and manufacturing cost didn't he?

A. Yes.

Q. If you put in something that favored the company how did it happen you came out less than Mr. Hall on that account instead of more. You having some of the items that are against the company?

A. He cuts out that 145,000—

Q. No, I am talking about this cost per thousand in cents, on page 19 the lowest that Mr. Hall has is 57.62 which is combination of the low manufacturing cost of 1910 with the low other expenses of the four year average except that in lieu of the four years' leakage they have taken the low leakage for 1910. Now then you get here 57.35 which is .27 of a cent less if I have subtracted correctly, but you do not get that less by making an addition do you?

A. I think if you will stick close to my own figures on page 71—

Q. You have given no figures about this matter on page 4100 71 except 57.62.

A. I have the net revenue \$145,173.05 which is the same as Mr. Hall gives at the bottom of page 19. Then I adjust by allowing the four cents, or about four cents on account of that depreciation being practically four cents instead of six, by making some addition for the taxes of 1910 and the accident claim that makes \$7,237.01, as applied to the sales of 1910 and that gives me the \$152,410.01 as applied to Mr. Hall's figure for the four year basis and \$143,100.23 as applied to his total for the five year basis. Now I got these figures I will explain more at length if that is what is wanted.

Q. That was not what I was asking for. What I was asking for was the cost per thousand. Let's begin over again. You say at the bottom of this page there is a profit of \$26.65 per thousand on 90 cent rate. Deduct that from 90 cents and you have left 61.35 haven't you?

A. Excuse me, when I said in this text that that profit 28.65 was on the basis of a 90 cent rate I thought I said or was using the figures in which the revenue given by Mr. Hall was used which was on the basis of not 90 cents, but 90.7 cents including Valley Junction at the higher prices.

Q. Then it is not based on the 90 cent rate in the first place?

A. Ninety cent rate in the city and existing rate at Valley Junction.

Q. It is not based on the 90 cent rate.

A. No, .7 of a cent advance if you have it 90 cents for Valley Junction.

Q. So that in that respect I can't take the statements here as exactly correct.

A. I stated the cost then stands—just before the table at 4101 the bottom of page 71, the case then stands with 90 cent gas in Des Moines as follows: That sentence together with the

thought I use Mr. Hall's figures which I make clear there, in his testimony that it was 90.7 on the average I thought relieved the report from any charge of being misleading.

Q. In other words, if we take out the inaccuracy, take out that given figure we take the real inaccuracy out. If we figure it out we could figure out where the inaccuracy was.

A. I don't consider any inaccuracy when I say with 90 cent gas in Des Moines.

Q. Before I forget it, have you discovered any error in your report which was not against the company or any inaccuracy in your report which was not against the company?

A. I have not stopped to consider most of these minor changes that I refer to whether they were for or against. They were slight errors.

Q. So that as far as you now recall you have not discovered any error in your report which was not against the company?

A. Yes, I remember some that I discovered that were in favor of the company. I had one or two in mind I know yesterday that had been that way.

Q. Now then let's begin over again with 90.70. Subtract 28.65 from that, that gives you what?

A. 62.05.

Q. Now take your four cents depreciation off of that?

A. 58.05.

Q. Now that is .43 of a cent more than the lowest combined operating that Mr. Hall figured out on page 19.

A. Yes, that may be due to the application to the four year period of what was precisely accurate for the five years period. 4102 but to avoid trouble of a new calculation I applied it to the four.

Q. We will get to that in a minute.

A. I made the same adjustments for the four year that I have for the five.

Q. I don't understand that, but we will come to it in a minute. The additions you made there to Mr. Hall's minimum are something over half of the arbitrary additions to the 90 cents. That is you have added .43 of a cent to Mr. Hall's minimum and have taken the rate 90.7 instead of 90 cents.

A. Yes, as applied to the four year period.

Q. Now let's go back to these taxes, I assume they will be found on page 5 of Mr. Hall's report?

A. The taxes for the year ending December 31, 1910, were 7.22.

Q. With an average of the four years of what or did you take the five years when it came to this addition?

A. I made my adjustment on page 71 with reference to the five year period.

Q. That was wrong wasn't it where you were using, together your figures you were using the low four year average weren't you?

A. I recognized that fact when I made the four year table, but I considered it was of very minor importance and affects taxes to have that less than half a cent.

Q. You don't seem to see what I am getting at or if you do you are not answering it. What I am getting at is this if you want to adjust your table for taxes you should take the difference between what you had for taxes, 6.65 in the four year period and 1910, instead of the difference between the five year average and 1910 because you don't use the five year average?

A. I use the five year average in my last column don't I?

Q. We are talking about the first column anyway where 4103 you use the four year average.

A. I used in the five year average which I make up first, the exact figures there 6.78 are the taxes for the five years while the taxes for 1910 were 7.22, the difference was .44 of a cent., which is what I refer to on page 71. Then having in that way got my figure adjustment, \$7,237 I used the same thing on the four year basis recognizing fully there would be a slight inaccuracy there, but I thought it was not worth noticing since in the five year basis which was much more conservative there was still an ample margin.

Q. In the column I am talking about where you had 28.65 you have used the four year basis don't you?

A. Yes.

Q. You use there the four year basis on taxes 6.65 don't you? That rather is the tax item in the four year basis, 6.65 look at page 5 of Mr. Hall's report and tell me whether that is not right?

A. The average in the four years is 6.65.

Q. To adjust that four year period to the 1910 taxes, you would have to take the difference between 7.22 and 6.65?

A. Yes. That is what I said I recognized when I did it.

Q. That is .57 of a cent?

A. Instead of .44 that is right.

Q. And your gross additions are only .43 of a cent.

A. On taxes it was .44 which was right for the five years. I am talking about taxes now.

Q. I am willing to talk about anything on that proposition.

A. When I said .44 I meant I was talking about taxes.

Q. Mr. Hall had for that period 57.62 didn't he?

A. He did.

4104 Q. You had for that same period taking out depreciation so as to make comparable 58.05?

A. Yes.

Q. The difference is .43 of a cent isn't it?

A. Yes.

Q. You didn't add even the amount of the difference between the taxes in the five year period and the taxes in 1910 did you?

A. There were just the two items in the transaction, 7,237 back to the four year period that meant the same average of expense also.

Q. The 7,237 is the balance that comes out of the depreciation and expense isn't it?

A. Well taxes too.

Q. And taxes also is it?

A. Yes.

Q. Let me have the figures will you?

A. They are given in the paragraph above.

Q. Well just let me have them.

A. Accident claims \$851.19 taxes \$2,340.76, total of those two items \$3,191.95.

Q. Now exclude depreciation because we deduct four cents and neither your figures nor Mr. Hall's figures take that depreciation into account at all, the figures we are discussing, no depreciation in Mr. Hall's 58.67.

A. No, but in getting back I did have an allowance of depreciation to harmonize them. I admit that slight inaccuracy. I consider that all correct enough for the proper practice.

Q. Now then that figure of Mr. Hall's 57.62 includes no depreciation?

A. That is right.

Q. Your figure that I get by deducting 4 cents depreciation
4105 from the 62.05, 58.05 includes no depreciation?

A. That is right.

Q. Now if you eliminate the items of depreciation then that difference between your figures and Mr. Hall's shows the total amount that you added to his figures doesn't it?

A. It amounts to that.

Q. So that when you come to compare figures that is less than the taxes and does not include anything on account of accident claims does it?

A. That is right.

Q. And your report here don't check out with the figures?

A. It does for the five year basis, you see what I did for the four years.

Q. We are talking about four years. That don't check out with the figures.

A. Only in the way I said.

Q. Now I want to go back to what I started with. How do you get a lower operating there, where are we going to save the money than the company ever had before?

A. The manufacturing, leakage and taxes of the present or of the last few years or rather of 1910 added to all the other expenses of the average give the figure that I take here and it should be corrected as to about .43 of a cent apparently, the small amount I have not worked that out to see what it should be, I think less than half a cent to be technically correct in the four year period.

Q. In other words then your estimate of the operating is simply based on picking out the low items here and making a- adjustment for taxes which is omitted.

A. It is not omitted in the five year period. The four year period
4106 I should not be able to say until I made the calculation whether the slight adjustment necessary wipes out all tax adjustment or not.

Q. What I want to get at is this your basis for your willingness to testify here as to what this company can op-erate for is your selection of these low items from these actual operating costs.

A. The selection of certain items which are legitimate, select the low cost, my testimony is not based on that less than the readjustment you speak of in the four year basis.

Q. Let me ask you another thing before leaving this page. Your estimate of return here is predicated upon the lowest operating consequently the basis most unfavorable to the company on page 71, is that right?

A. No, if I had taken your 1909 expenses other than manufacturing and applied that to your 1910 figures of manufacturing and leakage I would have had a lower figure.

Q. You might make lower combination?

A. Oh certainly.

Q. But not much lower?

A. Two or three cents lower I think.

Q. If you took the high figure it would run 15 cents higher?

A. I didn't see any fifteen cents higher.

Q. You paid no attention to the high figures?

A. I selected the manufacturing as I did from a thorough belief which I still have that is was the right method.

Q. Now I want to take up with you your figures on the bottom of page 61 for a moment. You have first there an item you call repairs works 1906-09?

A. Yes.

Q. It that an average of something or what is that, a four year average?

4107 A. That was the four year average. I explained how I got it earlier in the page, second paragraph. No, that don't that explains the manufacturing costs in the aggregate, that explains it for 1910.

Q. How did you get that 1.71?

A. As I stated it was from Exhibit "E" and there you will find the figure 1.71 given in Mr. Hall's report next to the last column.

Q. Now the average of the repairs works for the five years as shown by this Exhibit "E" was 1.90 wasn't it?

A. That is for the five years, 1.90.

Q. Now I wish you would point out how many of the periods shown in that five years showed a higher repairs works than that. Take the first two months period, what was it?

A. Of course that is no way to get at it.

Q. Pardon me, but let me get at it in my own way.

A. This was a weighted average I gave. Mr. Hall's average was a weighted average 1.71.

Q. I didn't ask you that, I asked you what the item repairs works for the two months' period ending February 28, 1906 was?

A. 2.06.

Q. The year ending 1907?

A. 2.32.

Q. The ten months ending December 31, 1909?

A. 1.91.

Q. Now the year ending December 31, 1910, 2.55.

—, —, —,

Q. The 1.90 then is the weighted average of that period?

A. Of the five years, yes.

Q. During three years out of the five, the rate exceeded 1.90?

A. Yes, one year of those it was .01 of a cent.

4108 Q. What year was that?

A. Ten months ending December 31, 1909.

Q. That is 1.91 for that period isn't it?

A. Yes, exceeding 1.90 by .01 of a cent.

Q. Now your argument here is what, not that repairs works average of 1.90 is too high to be a fair criterion?

A. No, I didn't intend to so state.

Q. I don't know that you state that in so many words, but I am giving the effect of it.

A. I would like to turn to what I stated, I know I intended to state that 1910 was too high to be a fair average, 1910 was 2.55.

Q. Where do you use that in getting any return or proper cost.

A. In getting total operating cost of 29.76 or I think a strict division makes it 29.75, but that figure 29.76 is used in both Mr. Hall's four year and five year basis and I adopt it for the manufacturing cost. That is per thousand feet of gas made.

Q. Your other expenses here are put down at 16.55. That is not correct is it under 1906-09. To be correct that should be 17.29 shouldn't it?

A. I believe not.

Q. Where do you get it?

A. I take Mr. Hall's 34.02 in Exhibit "E" as the total net manufacturing after deducting residuals and then deduct the items of repairs at works, 1.71 which you will find in that column and oil 15.75 that leaves the other expenses 16.56 of total of 34.02.

Q. If you took the actual other expenses they will amount to 17.29 instead of 15.56?

A. And then deduct residuals from the oil you get the same results.

4109 Q. (Question read.)

A. Yes.

Q. And it is necessary for us to take these actual expenses instead of these differences if we want to find out just what caused the difference in 1910 to find out whether we may fairly take it is it not?

A. It is helpful in that respect to put the residuals with the oil.

Q. Now let's do that for a minute. Your total manufacturing cost for your four year period before you deduct residuals is 34.75 isn't it?

A. That is right.

Q. And your total manufacturing cost for 1910 before you deduct residuals is 31.60?

A. Yes.

Q. Now what was the income from the sale of residuals in the four year period?

A. The average .73 of a cent.

Q. And what was it in 1910?

A. 1.84.

Q. There is a difference of over a cent, 1.11 is it not.

A. Yes.

Q. And you have absorbed that as a low cost of manufacturing here in your report, where as it is in fact an increased return from residuals that they happened to get that year?

A. That does not explain the difference between the total.

Q. I have not asked you that, just answer the question.

A. If I understand your question I should say yes, meaning by it that the increased result from residuals I deduct from the
4110 other expense instead from the oil. The total result of course is unchanged.

Q. But you have taken into account that increased result from residuals 1.11 in order to get this low manufacturing there 29.76 that you thereafter adopt and run through everything?

A. That was part of the low cost of 1910.

Q. Now then you knew didn't you that that result in residuals that you took there and claimed the benefit of was just about double the average for the five year period and more than double the average for the four year period.

A. But not *souboc* what it was in 1909.

Q. Please answer the question if you can.

A. It is double the four year period.

Q. More than double the average for the four year period.

A. Yes, that is right.

Q. And it almost double- the average for the five year period.

A. About 85 per cent additional.

Q. It is 1.84 against 98?

A. Yes.

Q. So that you have taken a return from residuals there that is an abnormal year as shown by the records of the last five years?

A. Higher than any previous year, yes.

Q. An abnormal year.

A. Well abnormal year as interpreted by you.

Q. I said as shown by the records of the last five years.

A. I think it is higher than any of the last five years.

Q. You know it is don't you?

A. Yes.

Q. And at least 50 per cent higher?

4111 A. Yes.

Q. It is 50 per cent higher than the next highest return from residuals isn't it for that period?

A. Yes.

Q. And is over six times the lowest return for residuals for that period?

A. Yes.

Q. Now then we have got a factor here of 1.11 to explain this difference. Now what is the difference in oil?

A. I state that here in the table as between 11.49 for 1910 and 15.75 for the four previous years.

Q. And that is how much?

A. That is 4.26 cents.

Q. And that to the 1.11 that gives us 5.37 doesn't it?

A. Yes.

Q. Those two items more than explain the difference between the 29.76 and the 34.02 do they not?

A. They are larger than that difference.

Q. The big item is the oil?

A. Yes.

Q. And whether or not we could take that 1910 figure and rely upon it would depend very largely upon what we knew about the oil situation wouldn't it?

A. After your contract runs out it would, yes.

Q. Now then can you tell us of any other gas company in the United States, what it is paying for oil today?

A. No, I don't know the current prices.

Q. Do you know of any gas company in the United States of the size of Des Moines buying oil as cheap as Des Moines?

A. I am not informed as to what any of them are buying it at.

Q. Do you know any gas company in the United States comparable with this company that is getting oil within 25 per cent of as cheap as this company is.

A. I say I don't know what any other companies are paying today for oil.

Q. Do you know anything about it?

A. I say I don't know, these prices are changing from year to year.

Q. Under these circumstances you adopt the lowest price for oil instead of the average price.

A. Well as in the rest I adopt the existing price in Des Moines.

Q. Did you adopt the existing items here at any time except when they would bring you out a low result, you didn't adopt the 1910 operating all the way through?

A. I took higher taxes. I didn't adopt all items because they were lowest.

Q. You didn't adopt 1910 operating all the way through did you?

A. No.

Q. Now then the only thing you had to sustain you on the oil proposition was a reference to Mr. Hall's report wasn't it where you said that in estimating the future operating expenses of the plant he put the oil at about what it is now?

A. That was one of the arguments that was used by Mr. Lea, one of the points that he made.

Q. I didn't ask you that, I asked you whether that was not the only thing that you had to sustain yourself in taking this exceedingly low cost for oil as compared with the average and use that as a basis for your figures.

A. That was the most definite but I didn't bind myself down to the oil alone, it was the total manufacturing cost that I took, not the oil alone.

Q. You knew that Mr. Baehr's report showed a higher
4113 price for oil as soon as the present contracts run out didn't
you?

A. Yes.

Q. You didn't mention that anywhere in your report here in
connection with this did you?

A. No.

Q. Simply mentioned the low one.

A. Yes.

Q. That was because you didn't think Baehr's report would be a
support for your contention?

A. I think this supports my views.

Q. You did that simply because you didn't think Baehr's report
would be a good argument in support of your contention, isn't that
true?

A. It didn't change the same view I was taking for various things.

Q. Isn't it true you omitted all mention of Mr. Baehr's report
on that question of oil simply because you thought it would not be
a good argument in support of your position?

A. I didn't think it was a good argument, no.

Q. That is why you omitted it?

A. I thought the other was more correct anyway.

Q. The reason you omitted all reference to Mr. Baehr's report on
this matter of oil was because you thought it would not be a good
argument in support of your position, that is true isn't it?

A. That was not true, no.

Q. I want to get you in this same connection in view of that you
say about repairs, to tell the Master whether the repairs works average
for the five years 1.90 were not 1.94 in 1904?

A. They were 1.94 in 1904.

Q. In 1905 they were 2.33 were they not?

4114 A. Yes.

Q. Nearly as high as they were in 1910.

A. Yes.

Q. In 1907 they were 2.32 cents; the year ending February 23,
1908?

A. 2.32.

Q. And for the two months' period in 1906 they were 2.06?

A. Yes.

Q. So that they have run over the five year average as far back as
we have a record?

A. Yes. I see that all the costs were larger as further back you
go for manufacturing.

Q. Where do you show that the repairs were larger?

A. No, but the total manufacturing which I use in my deduction.
I don't say that oil will always remain stationary.

Q. In view of all this, do you say that the average repairs for
1910 or for the five year period rather, that is 1.90?

A. It is hard to decide between the 1.90 and the 1.71 on that but
I took the 1910 figures and neither one of those.

Q. That don't answer my question. I want to know whether in

view of the history of this plant, you can say that 1.90 is high for this item?

A. It is very hard to say.

Q. Now go back to the first item of the manufacturing, the average for the five year period as 60 cents isn't it?

A. .60 of a cent.

Q. That is not high is it?

A. No.

Q. Now the average for boiler fuel the next item is 2.36? You can't say that is high can you?

A. You expected it to be about a cent lower soon.

4115 Q. What does that item cover?

A. It covers the fuel under the boilers in generating steam for all parts of the plant.

Q. Now then calling your attention again to my question that has varied during the five year period here from the minimum of 2.04 to the maximum of 2.88 hasn't it?

A. The 2.88 may be in the previous years, I will look.

Q. You can see it right in Exhibit "E" the year ending December 31, 1910.

A. Boiler fuel 2.88.

Q. That has varied from a minimum of 2.04 to a maximum of 2.88?

A. It was 2.88 I see.

Q. Can you answer that question?

A. It has varied.

Q. You knew — you used for the last year?

A. That is right.

Q. So you would not say 2.36 was unreasonable on that proposition would you?

A. I judge it to be so from what I studied Mr. Haines' exhibits put in the other day.

Q. You judge it to be unreasonably high?

A. Yes.

Q. And that was from something Mr. Haines put in the other day you said?

A. Yes that exhibit that was lost for so long.

Q. You know that has not been offered in evidence don't you?

A. I thought it had been offered in evidence by Gen. Byers.

Q. Leaving out of the question what you learned from what Mr. Haines' letter said, and taking the history of this plant for
4116 the last five years and taking into account that the last year showed the highest amount on account of boiler fuel and that the ten months ending December 31, 1909, showed the next highest amount, what would you say as to whether 2.36 was unreasonably high?

A. Why it is on the average and you might assume that the average was not unreasonably high except I would not want to be positive on that subject. It might be an average and yet be too high.

Q. So you are not in a position to state whether that would be reasonable or not?

A. I won't undertake to say to my knowledge. It is evidently too high according to Mr. Haines' letter.

Complainant moves to strike out these references to Mr. Haines' letter that is not in evidence as clearly matters that are wholly incompetent and the witness must know are incompetent and are not responsive to the question.

Q. Putting that in another way you don't know of anything that is in evidence here that would tend to support the conclusion that this 2.36 was too high do you?

A. I have not looked over the evidence of Mr. Lea and Mr. Baehr relative to the seven year future development to know how they did testify and therefore not well acquainted with the evidence on the subject.

Q. This coal is local coal isn't it?

A. I understand so.

Q. Are you familiar with local conditions here?

A. No. I asked one or two questions and yet I am not sufficiently posted to be very familiar with it.

Q. Do you know that for the last ten or fifteen years the price of local coal has gradually been going up?

4117 A. No, I am not acquainted with that subject.

Q. The next thing is expense works, what does that include.

A. I am not quite sure what they throw into that.

Q. Will you condemn these things as wrong without first ascertaining what they are and knowin- what goes into the various items?

A. I took the total and not the individual items. I group the manufacturing cost together in one lumped sum.

Q. But that don't answer my question, can you fairly determine whether this five year average is a proper average to use without taking into account the items that go to make it up unless you take yhe individual items, can anybody determine that question intelligently without doing that?

A. I think it is done sufficiently by dividing into three or four groups.

Q. You don't think then, in order to determine whether or not the average manufacturing cost is a proper cost to take into account in estimating furture operating expenses, it is necessary to analyze this average cost and to apply to the different items what facts there are which bear upon the probable price in the future?

A. Of course the more analysis you get the better.

Q. In order to form an intelligent opinion isn't it necessary to analyze these costs and do just what I said?

A. I don't think it is necessary to analyze further than I did for the use I make of the total.

Q. Going back to 1.33, expense works, inasmuch as you don't know what that includes, you of course can't say whether that would be reasonable or unreasonable to take into account for the future?

4118 A. These classifications of accounts which I have glanced through in the past give what is meant by that, but I have not tried to remember it.

Q. (Question read.)

A. I have not tried to take into account that one item except as grouped with all the items outside of repairs and oil.

Q. (Question read.)

A. I would not attempt judgment on that item alone and have not done so.

Q. Now then let's go to the next item, what is that?

A. Generator fuel.

Q. What does that cover?

A. That covers the coke or anthracite coal, whichever they may care to use.

Q. Which do they use?

A. Coke.

Q. Covers coke?

A. Yes.

Q. What is coke worth here?

A. The Exhibit I read of Mr. Lea's gives it, but I—

Q. I want to know what you know about it?

A. My recollection is, it was about \$4.50 a ton, but I am not quite sure.

Q. Do you know anything about it except what Mr. Hall's exhibit shows?

A. I didn't try to remember the figure.

Q. Do you know anything about — except what Mr. Hall's exhibit shows?

A. No, not as to the local market.

Q. How is the price of coke today as compared to what it was a year ago?

4119 A. I have seen these figures I believe for I asked Mr. Sansgter something about various contracts running back four or five years but I glanced them through, but I don't remember now what they showed.

Q. Then you are not in a position to say this item is an improper item?

A. No, nothing, the 1910 item you remember I took in all these cases.

Q. I am talking about the average for the five years?

A. I am not criticising any one item.

Q. Bearing in mind I am taking not 1910, but the average for the five years you have not the information that would enable you to determine whether 1087 for generator fuel would be a proper amount to use as a basis for an estimate as to the future have you?

A. Not except in a general way I think present prices are better on those things than the past.

Q. The next thing is manufacturing labor. What does that cover?

A. That covers the labor of running those generators and super heaters and carburetors, the general work in the retort house.

Q. Has the price of labor been going up or down?

A. There has been some tendency upward, but not necessarily per thousand feet, that does not always follow.

Q. I didn't ask you that, I asked you whether the price of labor was going up or down?

A. Well I would say all over the United States and the world of course it is upward.

Q. You referred to this as labor in the retort house, we don't have any retort house do we?

4120 A. Well I mean around the generator, water gas plant then.

Q. This 1.88 here is the same thing, what it was for 1910 and what it was for 1909?

A. Yes.

Q. So that you would not think that 1.88 was out of the way would you?

A. I am not expressing an opinion on it.

Q. Well have you the information so that you can express a competent opinion?

A. Only in the same way that existing prices of labor I think I am more justified in saying on the manufacturing plant than the five years and I did take the present year, the 1910 year.

Q. Now then the next thing is oil, we have gone over that. Now that oil there is appreciably higher on the average than it is for the year 1910?

A. Yes.

Q. And that is really what most of the difference is isn't it?

A. That and the repairs.

Q. The purification supplies is the next item, .21 of a cent? You would not say that was wrong would you?

A. No.

Q. The next item, purification labor, .08, you would not say that was wrong?

A. No.

Q. The next item, water tax .21 of a cent, you would not say that was wrong?

A. The same remark I made about the others will apply to all these.

Q. That is, that you have not the information by which to determine the question.

A. Yes and that I did not try to determine it, but took
4121 an aggregate and took the latest prices.

Q. Now you didn't take the latest prices did you after you got out of manufacturing?

A. Manufacturing, unaccounted for gas and taxes are the latest.

Q. You took the average for four years after you got out of the manufacturing except taxes and unaccounted for gas didn't you?

A. I have two columns, a four year and a five years average side by side.

Q. In another column do you have your proposition you have just stated taking the last costs?

A. Under the distribution in general outside of taxes. Take distribution in general as a general term outside of holder costs.

Q. And there is not any item in this average for five years as to which you have sufficient information to enable you to say that it would be improper to adopt it as a basis for a computation as to the future. That is right isn't it taking not manufacturing?

A. I don't attempt to do it, I don't know what items——

Q. (Question read.)

A. I should say the repair item might be considered high for the future.

Q. Notwithstanding the fact we have just gone over repairs back of 1904 and found that it is lower than the average for that period?

A. No, we didn't find that, we didn't find that the 1910 was lower.

Q. I was not asking about 1910, I was asking about the average for five years.

A. But I dissent entirely from the average being a fair way to approach it.

Q. I didn't ask you that, I asked you whether there was any item that goes into the total of the manufacturing costs based on 4122 the average for five years as to which you have sufficient information to say whether it would be proper or improper to adopt that item as a basis for an estimate as to the future and if there is such an item please tell what it is?

A. I have sufficient information in your own experience and what the evidence has shown to lead me to take the ground I do.

Q. (Question read.)

A. All of the items I have sufficient information.

Q. These are the very items as to which I have just been examining you and as to which you have said with reference to each item you had not sufficient information to determine this question have you not?

A. But I have in the aggregate from your own data.

Q. I know, but that is not what you answered me, I asked you whether there was any item going to make up the total of the manufacturing costs as shown here in the average for the five years as to which you have sufficient information to say whether it would be proper to accept it as a basis for the estimate in the future and if there is such an item going to make up that aggregate I would like to have you point it out?

A. I can't answer better than I have.

Q. You can't designate any item there as to which you have that information can you?

A. I can say in the aggregate to all of them.

Q. I didn't ask you that. Can you designate any item for which you have that information?

A. I would say repairs at the works.

Q. And this item of repairs is shown by the average here, this is the average of this item repairs works then which was in 1904, in 1905 in the two months ending February 28, 1906, in the 4123 year ending February 1907, the ten months ending December 31, 1909 and in the year ending December 31, 1910, is it not?

A. Whatever the figures show of that year I accept as shown in Mr. Hall's statement, Exhibit "E."

Q. What experience have you had in either making or overseeing the repairs of gas manufacturing plants where water gas is manufactured?

A. I never had charge.

Q. What statistics have you had available showing the details of this kind of work?

A. I have in previous gas cases had a good many statistics of that kind.

Q. You named ten or a dozen cases in your entire experience didn't you?

A. Yes.

Q. Now then go to the next thing here the distribution costs average for these five years. Have you any information as to any item that goes to make up these distribution costs?

A. I have had in the past, I have not in mind any at the present time.

Q. And would you be able to take up this item by item and say whether they were right or not?

A. I could see how they compared with a good many other companies and with your own experience.

Q. Of course we have our own experience right here in this Exhibit "E" and that is what you do as to our experience I presume?

A. Yes.

Q. What I want to know is whether you have any practical experience along this line?

A. I have often had occasion to tabulate the entire distribution and general expenses running over a series of years of other
4124 companies. I have always found a tendency to decline with these costs with increase of business.

Q. (Question read.)

A. I thought I said before I had no experience in the gas business although I have had experience of a statistical nature.

Q. You assumed I didn't mean what I said.

A. I didn't think you were asking over again for the hundredth time what you had asked?

Q. Now we can go right through the whole list here and get the same result can we?

A. The same general result would follow as in the examination of the manufacturing costs I think.

Q. In other words it would appear that as to not a single one of these items have you any practical experience or any practical information which would enable you to determine as a gas man what ought to be applied in the future here?

A. Not as a man connected with the gas business if that is what your question means.

Q. Or man familiar with the actual results of the gas business.

A. Yes, I am familiar with it as tabulated under oath.

Q. Where, in Massachusetts?

A. That is one case and also in other cases.

Q. Those are coal gas plants are they not?

A. That has nothing to do with distribution and general expense and that is what we are talking about now I think.

Q. Then your information as to this is confined to your Massachusetts experience practically?

A. I didn't say that because in all the other cases I have had it.

Q. And in all of the other cases you have been endeavoring
4125 to established a proposition and have been looking at it from a partisan part of view?

A. On the contrary I have had the statements of the companies themselves going back over a series of years as in the case of most every gas case I have ever been connected with. They have shown the same tendency you have shown here up to the year of the beginning of a rate case.

Q. On page 63 you attempt to justify this leakage proposition don't you?

A. Yes.

Q. That is what that page is devoted to?

A. Yes.

Q. Now you don't confine yourself to the same seven Massachusetts companies there do you?

A. I take a larger number.

Q. Did any of this larger number have as high a percentage of leakage as the seven companies that you first selected as comparable to Des Moines?

A. I made no average of the seven on unaccounted for to see how they compare with the eleven.

Q. Can you look at page 63 and answer the question. The companies you added were Boston, percentage 2.94, Malden, percentage 1.49 New Bedford, percentage 2.73 and Newton, 3.54 were they not?

A. Yes.

Q. Now will you take this average here, it is a mere numerical average of them?

A. That is all I made th-re.

Q. Now will you take the seven companies that you use in your first Massachusetts comparison as comparable to Des Moines and
4126 give us the numerical average of them?

A. Practically 5.2.

Q. Now then the Boston company buys how much of its gas from other companies or did in the year for which you took these figures?

A. I think about half.

Q. Where is that gas measured?

A. I have forgotten, I used to know, but I have forgotten now whether measured at Everett or at the city limits, but I think it is measured at Everett, but I can't swear to it.

Q. We would have to know that in order to draw any conclusions from this 2.94 wouldn't we?

A. No, because merely passing a large volume of gas two or three

miles through a big main would not result in an appreciable leakage. It is leakage in the services and small mains that piles up mostly.

Q. Where is the gas of the Des Moines company measured for the purpose of this comparison, before or after it goes into the holder?

A. Before it goes into the holder.

Q. Is that right.

A. It is past through the relief holder, but before it goes into the general holder.

Q. Are you sure about that?

A. I think it is.

Q. Are you sure?

A. Yes, pretty sure of that, but it don't make any difference.

Q. Now are you sure or not?

A. Yes.

Q. You are sure now?

A. Well that is my recollection of it.

Q. So it is measured before it goes into the big holder?

4127 A. Yes.

Q. Where does it go from to the meter?

A. From the purifying apparatus.

Q. Now then you could not make a comparison with Boston unless the gas that it purchases which is about half of its gas was measured at the same place could you?

A. There would be slight difference from that point. I don't think a large one.

Q. Well the way to tell would be to make like measurements, that is the only way you could tell isn't it?

A. Yes.

Q. I wish you would turn to the Massachusetts reports from which you got these leakages. Now what page do you refer to, it is page CXCIV if I read it right?

A. Yes.

Q. That gives on that page two years' leakages doesn't it?

A. Yes.

Q. You took one.

A. I took the latest.

Q. Boston for 1909 gave 2.69 instead of 2.94?

A. It did.

Q. Do you remember what it was in 1908.

A. No.

Q. Over 5 per cent wasn't it?

A. I don't know what it was.

Q. So you are not familiar enough with the Boston history to know whether this 2.69 or 2.94 is abnormally low?

A. No.

Q. Now take Cambridge, that gave you 4.15 for 1910 and 4.32 for —

4128 A. Yes.

Q. And that in 1908 was 8.59 wasn't it?

A. I don't know.

Q. Then you don't know whether these are abnormally low figures for Cambridge?

A. No.

Q. Fall River, you have 6.91. For the year before what was it?

A. 9.83.

Q. Do you know whether the 6.91 is abnormally low for Fall River?

A. No.

Q. Now then take Lawrence, you have 7.03?

A. Yes.

Q. That was 5.67 for 1909?

A. Yes.

Q. Are these figures abnormally low for Lawrence?

A. I don't know. I know that for several years the figures have been considerably below 8 per cent for most of these companies, other than that I don't remember exactly.

Q. Then the average for Massachusetts companies is considerably below 8 per cent.

A. Yes. That is for all the dozen or so larger companies.

Q. Now then Lowell, you took 1.97?

A. Yes.

Q. For the year before it was 3.08?

A. Yes.

Q. Did Lowell ever have as low a percentage as 1.97 before 1910?

A. I don't know. I know I have seen figures as low as these on some previous years, but I have not been through the 1908 or 1907 to see.

Q. You didn't see anything as low as 1.97 for Lowell 4129 within ten years did you?

A. I don't know. These were higher about two or three years ago. I might have compared each year's average in Massachusetts with your average last year, but I was in a hurry and only took the last.

Q. I want to get at whether this furnishes a condition that you can take as adoptable. In 1910 Lynn was 6.35 you have it?

A. Yes.

Q. It was lower than that in 1909, 4.59?

A. Yes, this is the same year I think that Mr. Baehr used.

Q. Now Malden you have 1.49. What was it in 1909?

A. 2.05.

Q. And in 1905 it was 18.96 wasn't it? More than ten times what it was in 1910?

A. I don't know.

Q. And New Bedford, 2.73, that was a little lower the year before?

A. That was 2.53 the year before.

Q. And Newton, 3.54, that was higher the year before?

A. That was 4.58 the year before.

Q. Springfield, 2.66, that was higher the year before wasn't it?

A. It was 3.56 the year before.

Q. And Worcester, 7.32, that increased a little over the year before?

A. Yes, the year before it was 6.44.

Q. So that this is true isn't it, that you can't draw any definite conclusions from one year's leakage?

A. No, you can only see a tendency downward in both Massachusetts and here and this is about on the average.

Q. These figures were put in here by you for the purpose of sustaining your conclusion that it was right to adopt the lowest leakage there was instead of the average?

4130 A. Yes.

Q. Whereas, if you go through a series of years in Massachusetts, it will show radical variations will it not?

A. A tendency downward, but not upward.

Q. For instance, in 1902, Boston was .39 of one per cent and 1910 it was 2.94 per cent.

A. Well I could not judge by one company, I would have to take this whole group for each year, I think it would show a downward tendency?

Q. You say the entire Massachusetts situation, it shows about 8 per cent?

A. No, I didn't say that.

Q. You said under 8 per cent.

A. I said in the past it had averaged under 8 per cent, how much under I don't know, I don't remember at the moment.

Q. That you think justifies you in taking 4.31 per cent for Des Moines?

A. I didn't say that there was any connection between those two events, I don't make any in my report.

Q. Wouldn't it be fairer if you were going to Massachusetts for a basis to take the average of the business shown than it would be to pick out one year of these companies?

A. Why I have seen companies which continuously maintain low rates as low as these on the average for a period of three or four years that I should think Des Moines might continue to do that.

Q. What has been the history of this plant, been any variations?

A. Yes.

Q. Sometimes been down and sometimes up.

A. So far as my figures go it has been averaging downward.

Q. And is low leakage sometimes accounted for by a slow meter?

4131 A. Certainly.

Q. You think it would be as fair to take a single year if we wanted to get accurate results as to take an average?

A. I think I answered your last question right opposite to the fact, a slow meter would tend to register less gas than passed through it and therefore an increase of apparent leakage.

Q. Think of that again and see if you don't want to change it over.

A. A slow meter we will say would register 90,000 when a hundred passed through it and if 110 feet left the works and the meter

registered only 90 when it should register 100 then the unaccounted for instead of being 10 would be 20.

Q. Which meter are you talking about?

A. Oh I see, I got that right turned around.

Q. You come back to your original proposition don't you?

A. Yes.

Q. You don't want to change your statement do you?

A. No let it stand.

Q. You didn't work out on this leakage table here your actual average, but simply took the numerical average?

A. That is all I took in that case.

Q. Would the actual average be higher or lower?

A. Well I think it might be a little lower because Boston is so large.

Q. Boston would bring it down?

A. I think so. Lowell also being low I should say yes, that a weighted average would bring that down. So there is a case where perhaps there is the interest of the company in my average.

Q. The next proposition you take up on page 64 is intended to be an argument to show that Mr. Hall's statement that it would be fair to put into these operating expenses on account of accident and damage the amount that would be required to purchase liability insurance was inaccurate isn't it?

A. Yes.

Q. And you try to get a result less favorable to the company don't you?

A. I get a result as I stated here which is less favorable to the company.

Q. And that is the purpose of these next two pages isn't it?

A. It was an attempt to show from other companies and I used every one available at the moment that I had data with me what the facts were. I took every company in Massachusetts in that.

Q. Do they make these reports in the same way that they make up their reports of assets?

A. I don't think so because they are more inquired into. The commission takes reports of assets without saying a word but the rate litigation cases or issue of securities frequently requires the commission to go into their accounts very carefully.

Q. Now how many years did you take in Massachusetts as your basis?

A. The two years covered by the last report.

Q. Then is that the amounts paid during these two years or does it cover the accidents that occurred in those years and were to be settled for afterwards?

A. As I understand it it is cash, statement of the amount paid out.

Q. Did you get your figures from page 83?

A. Yes.

Q. Well now you took what items there?

A. Claims.

Q. And you took the average for the two years?

4133 A. I took each year by itself. I mention each year in the two pages somewhere.

Q. Item 24 immediately preceding claims amounts to more than the item of claims doesn't it, that is law expenses?

A. Slightly more.

Q. How much of that was on account of personal injuries?

A. I don't know how that was.

Q. Did you include any of it?

A. No.

Q. Well then are you entirely confident that your Massachusetts figures here are based on correct premises?

A. In comparing them with your expenses I thought you had litigation also in as a separate item.

Q. But that don't make any difference does it, you state here in your report don't you what the Massachusetts expenses were on account of loss and damage matters?

A. Yes.

Q. Or you put it for claims?

A. That is probably what I said.

Q. Now then where in your report do you refer to 1909 which is the high year? You said a moment ago you referred to both years?

A. On page 65, the last line of the paragraph.

Q. Will you read it, the reference to 1909 expenses?

A. In the previous year it was only .3 of a cent.

Q. That is the only reference to that 1909?

A. Yes.

Q. Now to go back are you confident that what you say here about Massachusetts covers the entire expense of these companies on account of loss and damage?

4134 A. No, but if I should add all loss and expense for claims it would not make more than I have included for you, although I thought at the time—

Q. We will get to that perhaps later, what I wanted to know was whether we could rely on this as a correct statement as to what the actual expenses of the Massachusetts companies were of this kind?

A. I am not sure whether under claims they *pur* part of the legal expense or not.

Q. I see in the item that precedes that we have insurance \$61,000 equal to almost double law expense and claims. How much of that was insurance on account of damages for personal injury?

A. I don't know.

Q. Well you would have to know all these things to make a statement from Massachusetts that you could be confident was based upon a correct premise wouldn't you?

A. I think I should but my figure is twice as large as this one in Massachusetts was and I would still feel safe.

Q. So far we have gotten about four times that haven't you?

A. Oh no.

Q. Let's see. Take 1910, you have there for your claims \$23,-436.68.

A. Excuse me, you are taking now 1910.

Q. Yes. Now then law expense, \$39,175, and the insurance \$65,-585.48, will you add those?

A. All of them make \$128,122.91.

Q. Now quite six times \$23,436 that you took?

A. I thought you meant twice as much as I allowed for your company.

Q. You took the 58 Massachusetts companies you say.

A. Yes.

4135 Q. Now page 194 of this report of 1910, shows 60 companies don't it?

A. What page.

Q. It is CXCIV I called it 194.

A. What is known as Table 2?

Q. Yes. That shows 60 companies instead of 58 don't it?

A. Yes. I think I was counting another table where sales were given. I will count this also if you wish to verify your question. This was not the table I had before me when I counted.

Q. You referred to table on page CCL Table 5?

A. That is the table I used.

Q. That is the one we counted too, and it contains 60 instead of 58 don't it?

A. Well I will see again. I count 60.

Q. Now then in order to get at your sales, which give at 11,611,845 you took sales by meter on page CXCIV and sales by public lamps didn't you?

A. I deducted the same given at the bottom of the page you just refer to, CCL.

Q. That is you took 12,467,863.270?

A. And from that I deducted the sum of the sales given in the foot note on the previous page.

Q. That is sales to other companies 852,942.732?

A. The sales to other companies in the foot note consist of many notes at the bottom of the page, CCL.

Q. They aggregate the amount I stated do they not?

A. That I don't remember because I have not the figures in mind. What do you find it to be.

Q. We find it to be 852,942.732.

I have the slip here on which the addition was made if you
4136 want to verify it?

1/2. There is another place where sales to other companies was given and I really don't remember whether I had this page or that other page.

Q. Both pages check, that is we have worked it from both pages and we find they check. That makes 11,594,920 instead of 11,687,000?

A. A difference of perhaps 92,000,000 or less than one per cent, about 9/10 of 1 per cent I should think.

Q. Now then the figure you took 11,687,845,000 divided by 58, the other figure that you took gives instead of 205,000,000 as you have it, 201,514,569, doesn't it?

A. I don't know, maybe, I will take your word for it if it does.

Q. There again it happens that the mistake is such that it is against the company?

A. Well if that be the case it is an illustration of a mistake, that is all.

Q. Passing donations, you next take up bad debts do you not?

A. Yes.

Q. And your purpose there is to refute the contention that the expenses of the company will be to some extent increased by reason of the fact that the ordinance does not provide for a maximum and a net rate?

A. It would be increased if there can't be some method devised like the requirement of deposits to prevent it.

Q. Well you didn't answer the question.

(Question read.)

A. Yes.

Q. And the argument that you deduce in support of that proposition is that by the adoption of something in the way of the requirement of a deposit, some rule of that kind, the company could minimize these losses?

4137 A. Yes.

Q. Have you been advised by counsel for the city that when the water company attempted to do that here in Des Moines some years ago it was enjoined from doing it.

A. No, all I know was what I read of the supreme court of Iowa in the Cedar Rapids Gas case.

Q. You gave us the benefit of the law of that case as you understand it?

A. I refer to it here. I have not talked with counsel on the matter you just mention.

Q. Without talking with them about it, you hesitate to testify about it?

A. About anything here in Des Moines of the water case yes, I am not acquainted with the facts, haven't talked with anybody on it, the first I have heard about it.

Q. You say in Philadelphia they get along very well without any penalty. Is that a fact?

A. I confess I am uncertain. I know positively about New York and Boston.

Q. Yes, but Philadelphia you have got in there?

A. I thought from what I read that was true and I intended to state in my testimony I was not positive on Philadelphia.

Q. But you omitted to didn't you?

A. I did.

Q. As a matter of fact there is a penalty in Philadelphia?

A. If you say so I will accept it, I thought there was not.

Q. I am asking you?

A. I thought I had read there was not, but I don't know.

Q. You don't know whether there is or is not?

A. No.

4138 Q. Is there a penalty in Boston?

A. No.

Q. Sure about that.

A. Yes.

Q. Where did you get your information?

A. I can't say now.

Q. You are sure about New York because you testified in the New York case?

A. There is no penalty in New York in any of the companies, New York or Brooklyn. There are several companies there.

Q. Now you say referring to that at that time the losses from bad debts were only 1.62 of a cent per thousand cubic feet of sales while Mr. Hall and I left in the Des Moines expenses as a basis for estimating the future, .64 of a cent. That was a slip of the tongue wasn't it?

A. When you say .64 I shall have to look again.

Q. When you say Mr. Hall left in the Des Moines expense. Did you and Mr. Hall collaborate in getting this up?

A. No, but I stated that I adopted his figure and my impression is that that was his figure. I can verify that of course.

Q. Let's see where we get that, is that in Exhibit "E"? Under what head?

A. For the moment I don't know, but I had the figure I am sure before me.

Q. Try uncollectible bills?

A. If I follow that line correctly with my eye I find the figure .64 in the last two columns of Exhibit "E." That was undoubtedly the figure I had before me when I wrote that sentence.

Q. That was the average for the four years and average for the five years.

4139 A. Yes. A little higher than the average for 1910.

Q. Now then that was the loss for bad debts with this net rate in there and a penalty if the bills were not paid within fifteen days?

A. Yes.

Q. And you allowed that on a basis of New York with no additions as the expense on this account where there was no such penalty provided for in the ordinance.

A. I believed that by deposit it could accomplish the same thing and I did leave the same figure, yes.

Q. And you did that without inquiring as to whether they had a right to require a deposit?

A. All inquiring I did was to read that decision that I mention.

Q. And you didn't take into account the increased costs of collection that would be involved to minimize this amount on bad debts?

A. I assumed that so far as there were losses they might be covered by interest on the deposits.

Q. That don't answer my question. It would involve more cost to collect the money where the consumer was not induced to come in and pay promptly by this penalty provision than it would without it wouldn't it, leaving out of account the amount of losses?

A. There might be a little more and there might not after the community became used to it.

Q. You would infer that there would be no more expense in collecting if that penalty provision was removed?

A. There would be I think for a year or two but I don't know that there would be permanently.

Q. You have not taken that into account?

A. Only as is covered by the fact that I do not reduce the
4140 distribution and general expenses with growth of business. That is an important item.

Q. You refer to the gas company's credit for interest on deposits. In every case where you have testified where such deposits were made you have charged that interest against the company haven't you, and have testified that in your judgment the consumer was entitled to it?

A. I don't remember. I think the testimony—I don't remember my testimony on that, I don't think the interest on deposits has usually been paid consumers in these cases.

Q. I didn't ask you that. You have invariably, have you not, testified that it must be and ought to be except in this case wherever that has been a question?

A. I remember in one case so testifying, I don't remember any others. As a matter of fact it has not been so used, but has been absorbed by the company in most cases.

Q. Now take up the next page, rate litigation expenses. That page is intended to be an argument in support of the contention that these expenses should not be taken into account in estimating for future operating expenses, isn't it?

A. Yes.

Q. It does not set up any fact does it, that is any fact that is a fact that you give here?

A. It was thrown out by the courts in New York in the consolidated gas case.

Q. That is an argument on the legal proposition, simply the citation of a precedent?

A. Yes.

Q. Aside from that does it set up any fact?

A. I think not.

4141 A. *I think not.*

Q. Now you say this the city of Des Moines in fixing rates for 1911 and subsequently had no reason to believe that the company would spend money at the rate of several thousand dollars a month for a year or more in contesting a decision. Upon what personal knowledge of your own do you base that statement?

A. I was not here in Des Moines and have no personal knowledge. It is a belief rather than knowledge.

Q. You have no knowledge whatever as to what the city of Des Moines believed if a city could believe something have you?

A. No.

Q. This is simply an argument to support the proposition. Now let me turn this around. You have seen in the newspapers there

has just been a *dedicion* in the water case here and it was held that the company was justified and the city was not justified in passing the ordinance. Now do you think the city ought not to be allowed to call on the tax payers to pay the expenses of that suit?

A. Well, I can't express an opinion without knowing more of the case. The analogy would be—

Q. I just wondered wh-ther your rule would work both ways.

A. I think the rule might work that if the city can be legally asked to pay the expense it should be by charging it into the rates for water for the next three or four years as would be done in the case of gas. That would be the analogy I would have in mind as to the case. That is the way the matter has worked in previous cases where the company won, in water cases, there may be a different precedent regarding decisions.

Q. Now you state what the company should do if it loses. Suppose the company should win?

4142 A. I thought you were asking me what would happen if the company should win, as the water company had won. I thought you were speaking of the water company won. If my reply was based on the supposition of the water company being defeated, it would not be correct.

Q. Your next page takes up taxes doesn't it?

A. Yes.

Q. That is again devoted to the argument of the tax matter, what taxes ought to be taken into account in getting at the operating for the future.

A. Yes.

Q. That is all there is to it isn't it?

A. That is all it purports to be, a discussion of the tax rate.

Q. And that is all there is to it isn't it?

A. Why yes, it is a discussion of taxes. That is what it is headed.

Q. Now turn to page 69, that and the succeeding page are your argument with reference to the expense other than manufacturing, leakage and taxes which ought to be taken into account in getting at the oper-ting for the future.

A. Argument or reason or position, as you chose to call it.

Q. Is it a misnomer to call it your argument on that proposition?

A. It is my position backed up by my reasons.

Q. That as near as I can tell is an argument.

A. You can define it.

Q. Now you say at the bottom of the page there is therefore overwhelming reason for holding that the year 1910 being an absolute exception to the previous experience both of the Des Moines Company and all gas companies in general, except immediately preceding contests as to rates, as to fully justify the throwing out
4143 of 1910, and sub-stituting for it in 1904 and 1905. What is the overwhelming reason to which you refer.

A. The history of your company for six or seven years and so far as I could get it for four years earlier, 1890 to '94 inclusive and the experience of other companies all over the country, the general experience.

Q. Now these profits at 90 cents that we took up some time ago commencing with page 71 is the application of what has preceded with reference to these operating expenses isn't it?

A. Yes.

Q. You then take your market returns on bonds, latest market quotations commencing at page 73?

A. Yes.

Q. These things are given to support your contention as to fair return.

A. Yes.

Q. And why do you omit Buffalo from that list of bonds?

A. Because so absolutely abnormal. I know of no other company situated as Buffalo with an intense competition from natural gas so that it is a question of whether it will keep *up* its interest payments, has been always doubtful.

Q. What were the Buffalo company's bonds stated at in the issue of the financial chronicle to which you refer.

A. I don't remember.

Q. 61 weren't they?

A. Possibly, I don't remember.

Q. And this competition is one of the hazards of the gas business.

A. If that had been added it would have reduced the percentage at the bottom of page 75 not more than 3/10 of 1 per cent.

Q. This competition with natural gas to which you refer 4144 is one of the hazards of the gas business?

A. In some sections of the country, in other sections not.

Q. How long since it was not in Buffalo?

A. Natural gas has been in Buffalo several years, I don't know how long.

Q. Is it ten years since the people in Buffalo ceased to believe they were absolutely free from this natural gas hazard?

A. I don't know when natural gas was introduced in Buffalo, but it had been in several years before I had my attention attracted to it four or five years ago. I should think natural gas must have been in ten years.

Q. Prior to that time they believed they were as free from that kind of competition as we believe here in Des Moines?

A. I suppose so, although natural gas had been around that section nearer I think than it is here before it reached Buffalo.

Q. Was it nearer than Kansas City is to Des Moines or St. Joseph?

A. Well I can't say the distance of those cities only I know that natural gas is rather on the wane in Kansas City and that far away.

Q. That don't answer the question whether natural gas was nearer to Buffalo than Kansas City or St. Joe to Des Moines?

A. I don't know how near, only there were gas lines within one or two hundred miles of Buffalo before it reached Buffalo. I don't know the distance between the cities and *her* you name.

Q. Where does the natural gas now used in Buffalo come from? What district?

A. I believe it comes from the Pittsburgh district, some of it may

come from West Virginia, I am not posted, because I have not had occasion to look it up for some time. Where gas comes from in Cleveland, I am acquainted with that, but where it starts to Buffalo, I don't know.

4145 Q. There is other districts up near the Pittsburgh district?

A. There is a large amount of gas not very far from Pittsburgh supplies that section, used to, I have not looked into that lately.

Q. Do you know whether they are furnishing any there now?

A. No, I have not had occasion to look into that natural has this long time, that district.

Q. You were familiar with Buffalo you said four or five years ago?

A. Yes and forgotten some of it since.

Q. Was that when you and Prof. Marks were witnesses there in 1907?

A. Yes.

Q. And there you predicted largely increased profits to the company didn't you on reduced rates?

A. I don't recall but I think I predicted the tendency to some increase.

Q. And have these bonds been going up or down since then?

A. I don't know. They didn't make any reduction I think in prices.

Q. Does this list of bonds which you give here cover all of the gas bonds which were quoted in that issue of the financial chronicle?

A. It was intended to, unless I thought they were not natural gas bonds or a combination of gas and electricity or traction in a way which was very difficult to separate. Everything that appeared to be a gas bond I took. I dare say there may be a half dozen companies that I might have omitted unintentionally. I didn't intend to omit them.

Q. You limit this to five per cent bonds?

A. I do, for two reasons. The bonds here were five and secondly most of the gas bonds are five per cent.

Q. We have to read your report very carefully to find that
4146 limitation in it.

A. I don't know as to that. I state nearly all gas bonds quoted in Journal are five per cent bonds, if any such -re omitted in the following table it is an oversight.

Q. It is an indirect statement growing out of certain lists, we have to look for it in order to see that this statement is limited to five per cent bonds. Read the first sentence here preceding this paragraph?

A. Below are given the latest prices bid for all artificial gas bonds in the bank quotation section of the Commercial and Financial Chronicle Aug-st 5, 1911. That should have included it was 5 per cent, which I certainly imply in the next paragraph and I think stated it in my testimony.

Q. But it is necessary to read this pretty carefully to get the indication isn't it?

Mr. BRENNAN: That is a matter I think the report shows for itself.

Q. You don't include there the undesirable bonds for which no bids whatever were quoted?

A. I only include bonds upon which there were prices bid.

Q. Of course the bonds upon which you would expect no bids are undesirable bonds?

A. Not necessarily, they might be small companies that were not on the market, a great many of those.

Q. Now this same Financial Chronicle quotes water bonds don't it?

A. Yes.

Q. Are they quoted higher or lower than gas bonds?

A. I didn't look to see.

Q. Now the next thing you take up here is market return on stock is it not?

A. Yes.

4147 Q. And that also is intended to support your contentions as to fair return?

A. Yes.

Q. And that is all that is intended by that is it not?

A. Well there is data given there but as you say it is intended to support my contention.

Q. Now you refer to the Massachusetts gas company?

A. What page please.

Q. 78. That is a holding company is it not?

A. Yes.

Q. And how much tangible property has it?

A. I don't know.

Q. Has it any?

A. I don't suppose it has much, in fact I should think very little but I can't say whether it has a surplus or not.

Q. And what is its capital stock?

A. I don't remember.

Q. Did you ever know?

A. I think in the industrial section of the Commercial and Industrial Chronicle I looked it up, I have forgotten.

Q. How much water is there in this stock or what you call water?

A. I don't know.

Q. Then you don't know whether it is paying 4 per cent on the value of the property it owns or ten per cent on the value of the property it owns?

A. No. I am only talking about what a certain return will bring a stock to in the market provided there is a reasonable certainty of its continuance.

Q. Do you know of any company paying dividends that is distributing all of its earnings and dividends?

4148 A. I think the Boston company is, the Boston gas company.

Q. You mean the company that is acting under this statute of

Massachusetts that requires it to either distribute its earnings or forego them?

A. Oh no the statute does not require any such thing. It can accumulate them.

Q. It can accumulate them.

A. But if it pays them out then the price of gas is regulated proportionately.

Q. You are sure you are right about that?

A. Within certain limits it can accumulate them, within larger limits than it has ever exercised. There is a limit to it I think but they do not reach that limit anywhere near.

Q. Do you know of any other corporation than the Boston gas company that is paying out all of its earnings in dividends?

A. I could not say at the moment that I do. Most companies aim to save a little.

Q. And does the ratio between the dividends paid and the earnings actually made have anything to do with the market value of the security?

A. Yes to some extent. It does not have as much as you would think it would have, but it has some.

Q. You make some figures here on page 81 on the assumption that half of the property or half of the assets of a gas company in Iowa are raised by stock and half by bonds.

A. Yes.

Q. Did you know the ratio which the law fixes between the indebtedness and the amount of stock?

A. No, I don't.

Q. Well you would have to take that into account wouldn't you before you financed an Iowa company?

4149 A. Yes.

Q. If the law of Iowa prohibits an indebtedness in excess of two thirds of the amount of the stock an Iowa company could not be financed upon the basis which you state here could it?

A. A new company could not. Your company has been.

Q. Are you correct about that, at any time has our bonded debt exceeded two thirds of the amount of the stock.

Court: That is a question a lawyer can answer just as well.

Mr. GUERNSEY: I don't care to go into it except the witness has volunteered this statement which is incorrect.

A. No, I am not sure that it has.

Here the further hearing of this case was adjourned until 9:30

A. M. tomorrow.

4150

Wednesday Forenoon Session.

SEPTEMBER 27, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

Prof. EDWARD W. BEMIS, continuing his cross examination, examined by N. T. Guernsey, testified:

Q. Professor Bemis, have you any further corrections that you desire to make this morning?

A. No, I have satisfied myself as to the two or three matters you have been over, but I thought I should bring them in on redirect. If you wish me to refer to them, I can do so now.

Q. No, I have no doubt you have arranged them properly. Did you look over the exhibit identified yesterday?

A. Not carefully; I have glanced at it; I looked it over only partially.

Q. Now referring to pages 73, 74, 75, 76, 77, 78, 79, 80, 81 and 82, they are simply your argument on the fair return question, are they not?

A. I don't think the term can be applied to argument any more then it can be to most testimony, because it is full facts I present for the first time in the case.

Q. It is facts which you present to sustain your contention?

A. They bear on and confirm my belief, and my belief is partly based—

Q. Well they are facts which you brought in in order to sustain the conclusion which you sought to uphold?

A. Yes, and to show how I came to reach my conclusion. In other words, I did not select facts; I took from quotations, save where it is specially mentioned.

4151 Q. You took from quotations but you did not include anything but five per cent bonds; you excluded places like Buffalo—prominent places where the price was low, and excluded bonds upon which there were no bids.

A. Buffalo is the only place I excluded out of the whole list of 127 bonds, and it would not make a difference of three-tenths in the result; it would be over 97 with Buffalo included. I consider Buffalo very abnormal but am perfectly willing to include it; I do not know of another exception or omission.

Q. Now you next take up, do you not, what you call future growth and profits?

A. Yes.

Q. What proposition do you attempt to establish there?

A. In a general way, that the increasing sales diminish operating cost, so that a rate based on the last year, or the last five years would be too high for the next three or four years. We are fixing a rate for the future increased business and not trying to show that the past three or four or five years was conducted on an exorbitant price.

Q. You say we are fixing a rate; this is not a rate making proceeding, is it?

A. It is a little general use of language; the city was attempting to fix a rate and we are of course reviewing it.

Q. Now, you know of course that the cities in this state can not fix rates for any definite time?

A. That is a mere quibble, as I would consider it——

Q. Pardon me, but will you answer the question?

Mr. BYERS: I think that is an answer; I think that is a very proper reply to a question that involves what the law is.

4152 Mr. GUERNSEY: I asked the witness as to his knowledge on that proposition. I assume that this rate matter could be taken up every year, but as a matter of fact is not.

Q. In other words, your argument here is based upon the assumption that a rate is fixed for a definite period?

A. It is practically fixed for at least four or five years. It does not depend on that, however, because I consider the rate is reasonable on the basis of 1910, if it were only fixed for one year.

Q. Is there any fact that is referred to by you in this connection with your discussion of this subject aside from the history of the Consolidated Company and the Brooklyn Company?

A. If you mean by fact definite figures, no. I am prepared to give some——

Q. Well, what I wanted to get at was something here that is a statement of fact as distinguished from conclusions or argumentative statements?

A. Of course the only figures that I give as definite figures are New York and Brooklyn; I am prepared to give others.

Q. Now where did you get your New York figures, in your New York gas case?

A. No.

Q. Where?

A. From a letter sent me by Mr. Webber, the statistician of the commission, at the request of Milo Maltby. I wrote Dr. Maltby when I was preparing my Chicago report a few weeks ago for this information and he turned it over to his statistician, and Mr. Webber replied.

Q. So that this testimony is based upon a letter written by somebody who is not here for cross examination?

4153 A. It is a letter by the statistician of the Public Service Commission, First District, New York City.

Q. That is true also of Brooklyn?

A. Yes.

Q. So that you have not the details there—you do not know from what these figures have been made up?

A. Yes, I have been in his office since and talked with him about them. They are the official returns of the company.

Q. But you have not the details of the figures and you yourself have not made this up?

A. I took them from his letter, which was practically an official letter of the Commission.

Q. Now, you say similar results in Boston and Chicago might be cited?

Q. Have you access to the records in Chicago?

A. I had in that, yes; in a large measure, not fully.

Q. When?

A. They have published their sales up to about eight or ten years ago. In the 1906 hearing, December 1905, and January 1906, the figures there were used for the two companies, the People's and the Ogden; and then recently in a letter of the Company to a formal complaint in court before Judge Gibbons, they have given further data for the last three or four years.

Q. So that this is hearsay testimony also?

A. It came from the company itself, and was in a court action; it has the same basis as your own testimony here.

Q. Do you remember the testimony of Professor Marks in the Consolidated case to the effect that the field for extension of business in New York was sui generis and could not properly be compared with any other city in this country?

A. I do not remember exactly; I think probably that is true.

Q. That is it, isn't it?

A. Yes, Manhattan is somewhat different of course from its enormous buildings, etc.

Q. Would the local conditions in Des Moines have anything to do in your judgment with the possibilities for increasing the per capita sales?

A. Always local conditions have an effect.

Q. Have you taken those conditions into account here?

A. Yes.

Q. What are they?

A. The fact that now you have meters on a large proportion of the — and buildings, so there is not room for as large an extension in the number of meters, the percentage of increase relative to the population in the future, as there has been in the past. That is the most important local limitation.

Q. Do you know of any city in the United States with 90 cent gas that has as high sales per capita as Des Moines has today?

A. I know a few cities that have a higher, but I don't remember at the moment their prices. Indianapolis has somewhat higher, with 60 cent gas.

Q. Do you know of any city in the United States with 90 cent gas that has as high per capita sales as Des Moines has today?

A. I will have to look that up; I don't remember whether I have the data on that with me, but I will see. I guess the memorandum on the subject I left in my room. I went through Brown's Directory and noticed the prices and sales of cities about the population of Des Moines. There are a half dozen of about the population, that is not varying more than 30,000 or so either way, that have as high or higher.

Q. At 90 cent gas?

A. I won't say precisely 90 cents; I have the prices noted.

Q. I asked you whether you could give me any city in the United States with 90 cent gas that had as high per capita sales as Des Moines has today?

A. I don't remember at the moment what the prices were in those cities, so I have to defer the answer.

Q. So that you cannot at this time give us any such city?

A. I don't remember what the prices were in those cities.

Q. Now you have frequently worked in a reference to lower prices of gas in some other city, and which was not responsive to the question, why did you do that?

A. I don't know what you refer to now.

Q. I refer to your answers to these last questions.

A. I thought I was answering them.

Q. Why did you work in the reference to the price of gas in Indianapolis, for instance?

A. Because I considered that an illustration of the effect of reduced price on increased consumption.

Q. In other words, you thought that would tend to maintain your position although it was not responsive to the question?

A. It may not have been absolutely responsive.

Q. You thought that would maintain your position?

A. I thought so.

Q. So you deliberately did not answer the question but attempted to bring in something else which you thought would maintain your position?

A. I did not perhaps sufficiently appreciate the import of the question. I thought your question related largely to the higher 4156 per capita; I did not fully realize you confined the question to 90 cent gas.

Q. That was after I had told you at least twice exactly what I was asking for?

Objected to on part of defendants as being improper and not cross examination.

The MASTER: I think the last time you omitted 90 cents.

Mr. GUERNSEY: I may have. If I did omit it, it was a slip of the tongue.

Q. It is true, is it not, that when you mentioned voluntarily these lower prices you failed to mention things like the difference in candle power that ought to be taken into account?

A. They should not be taken into account largely in per capita; they should be in the manufacturing cost in the holder.

Q. They should be when you come to this matter of price, which was what you brought in?

A. You were talking about per capita sales.

Q. Not in the question I ask you now. Confine yourself to the question, please, if you can, and divest yourself of your disposition to argue. Now then every time that you have brought in the low price it was in response to something which was not responsive to the question, and you failed to call attention to the other distinguishing things that ought to be taken into account in comparing that with the prices here, have you not?

A. I can answer that question only by saying that you contradict yourself in your question.

Q. In other words, you cannot divest yourself of your disposition to argue instead of answering the question?

A. Your question cannot be answered because it is contradictory. I will explain if you wish—

Q. Now, then, take Indianapolis, do you know what the candle power there is?

A. About six hundred. It is ordinary coal gas. It has not more than about 16 or 18 candle power.

The MASTER: When you say six hundred, what do you mean.

A. Six hundred B. T. U.

Q. I asked you for the candle power?

A. Brown's Directory gives it; I haven't it in mind at the moment.

The MASTER: You answered six hundred.

A. I thought he asked for heat units, British thermal units.

Q. Now you made some comparisons yesterday in Massachusetts and you make some further today in your report, do you take into account the candle power there?

A. Yes and no. For the purpose of comparison it was not necessary. I did not attempt to show as to manufacturing cost by any comparison in Massachusetts.

Q. You referred yesterday several times to what they were selling gas for in these Massachusetts towns?

A. Yes.

Q. And you always gave a price lower than 90 cents?

A. That is right.

Q. And you always gave us a town where the candle power was lower than Des Moines?

A. Yes.

Q. And nowhere called attention to the difference in candle power?

A. I made in my report—it was irrelevant—

Q. I didn't ask you that; did you anywhere call attention to the candle power?

A. In my report I did.

4158 Q. Will you point out in your report where you did?

A. I assume if you do not find it there, it is not there. I was very careful to make no point that depended on the candle power. Every Massachusetts city has a higher manufacturing cost than Des Moines. As long as that was the case, as long as they sold cheaper here was the point, and not the vital point. Every manufacturing city or the aggregate of the seven cities is the only thing I used.

Q. Getting back to my question, you have nowhere taken into account the difference in the product furnished where you have been comparing these prices?

A. I did not and should not, for the point I was making it would have been wrong to have done so.

Q. Now then does the cost of gas, the actual cost of manufacture and distributing gas vary either with the kind of gas made or with the locality where the work is carried on?

A. You must separate the question into manufacture as one and distributing as the other.

(Last question repeated.)

A. In the aggregate it is true that it varies.

Q. It varies both with the locality and the character of gas made?

A. Yes; but the distribution in general does not vary with the candle power and that is what I used.

Q. Now did you correct all the errors on page 85?

A. I have not been through with all those figures, but I haven't thought of any mistakes here of any importance; anyway I thought I corrected them all; I think they balance.

Q. Now taking up the Massachusetts experience, commencing on page 85, you run over to page 93, do you not, and that is all predicated upon those Massachusetts figures?

4159 A. Yes.

Q. And what is the purpose of that part of your argument?

A. To show primarily that the margin between the manufacturing cost and the price and the margin for net profit in cents per thousand feet could be compared with conditions here, and it would show that Des Moines at 90 cents would have as large a margin in cents per thousand feet in profit as the Massachusetts companies and a larger margin for the difference between the price and the holder cost and leakage; taxes I may not have included. I have a separate computation for that.

Q. So that the ultimate purpose here in these pages of your report is by comparison with Massachusetts results to demonstrate that the net return in cents per thousand feet of the Des Moines Company is higher than the net return in cents per thousand feet of these Massachusetts Companies and is therefore at least high enough?

A. Yes, at 90 cents it would be as high as the Massachusetts reports. It is confirmatory but not conclusive.

Q. That is the purpose of this part of your argument, to cover that proposition?

A. Yes.

Q. Now, only one of these companies makes water gas?

A. That is, makes exclusively water gas, you mean?

Q. Yes. Fall River is the only one that makes exclusively water gas?

A. I think nearly all of them make some water gas.

Q. You first took your population and you then took your sales and worked out the per capita sales and sales per mile of main?

A. Those pages I did not have in mind that particular purpose.

Q. Those are a sort of digression?

4160 A. They have in mind another purpose. To show the tendency of sales to increase per capita and per mile of main, although not very much per meter, and to show the fallacy of the common argument of gas companies that you can determine by the sales per meter anything about consumption or profits, which is an absolute fallacy.

Q. I thought you wanted to argue that proposition?

A. It is true.

Q. The ordinary man don't swear to the truth of an argument. I won't discuss that with you. Now, turning to page 86, you included in your sales for Cambridge the sales which Cambridge made to other companies?

A. Yes; they were very small.

Q. So that to that extent you increased your per capita and worked it in twice?

A. Well, there is a slight change there.

Q. As we figure it it is 284,700, *hundred* feet?

A. That is right.

Q. It is that much improperly included there?

A. If you will excuse me until I find the page——

Q. We would like to have it right if we are to draw conclusions from it.

A. 755,300 feet in Cambridge out of 669 million, are sold to other companies.

Q. Well but we are talking about 1905, and you have 1910?

A. I was looking at 1910, the only report I happen to have with me; that is the one we talked about so much yesterday.

Q. Will you look that up and give us what ought to be the correct figure there?

A. I will. In 1905 it was 284,700 feet out of sales of 439,162,251 feet.

4161 Q. And that would reduce your average at the bottom from 369,336,622 to 369,295,950?

A. Oh, yes; I realize that in 1910 for Springfield, and I think I referred to it in the testimony on the top of page 85.

Q. You say they sell less than two per cent of their make to other companies?

A. That was only 1910.

Q. You don't anywhere make this correction, do you?

A. No, two per cent, I thought it was too insignificant to bother with it.

Q. It is only a small error, but it happens to be against the company?

A. I did not think that was particularly important for or against. A few feet per capita do not make any appreciable difference in the result.

Q. Let us take 1910, the column of sales for Cambridge to other companies, which were 755,300 feet?

A. Yes.

Q. That should be deducted if we want to get an accurate per capita?

A. Yes, if we want to get down to that fine point.

Q. And the sales for Lynn to other companies were 3,991,000?

A. Yes.

Q. And they should be deducted if we wish to get a correct per capita there?

A. Yes.

Q. And the sales by Springfield to other companies were about ten per cent?

A. Yes. 58,890,736 feet.

Q. So that there is a total change there of about 64 million feet?

A. Without computing it I should say about that.

4162 Q. And your average for 1910 then would be changed from 566,913,937 to 557,721,475?

A. About that, I should think.

Q. And your per capita would come down from your changed figure, 45.86 yesterday to 45.12?

A. About that; I didn't consider that worth noticing, so I didn't bother with it, but I referred to it on the top of the previous page.

Q. Read the reference from the top of the previous page which says that your sales included sales to other companies?

A. There are seven companies in Massachusetts about the size of the Des Moines Company. They do not buy any of the gas that they sell as do some other Massachusetts companies and they sell less than two per cent of their make to other companies, the other ninety-eight per cent of course being assumed to be sold to consumers.

Q. There is no statement there that in getting at your per capita you included those sales to other companies so as to increase the per capita?

A. The sales I thought would be given, having stated the ninety-eight per cent.

Q. We get again to an assumption but not a definite statement?

A. I had in mind that the title was clear, having stated two per cent of it was to other companies. That only applies to 1910. In 1905 there was less than one half of one per cent, and the — thing in 1900.

Q. On the next page you give the increase in the miles of mains and meters and in the sales, and in the sales per meter, but nowhere do you put in the increased investment that is necessary to take care of the increase of sales?

4163 A. No.

Q. That is a necessary factor, is it not, if we are to reach any conclusion as to the future net earnings?

A. When I gave it—

Q. Will you answer the question?

A. Certainly, yes; only I did not ignore it in the report.

Q. Now your miles of main, take your figures here on page 87, your sales increased from twenty-five hundred thousand to thirty-seven hundred thousand?

A. Yes.

Q. That is an increase of about fifty per cent?

A. Yes, per mile of main.

Q. Now, how are your gross sales for that period, have you got them anywhere?

A. Yes. On page 86, the previous page, the totals have increased one billion five hundred twenty-nine million to three billion nine hundred and sixty eight million; two and a half times as great in 1910 as in 1900.

Q. Now I wish you would look at this Exhibit 66 and state

whether that shows correctly the figures as they should appear on your page 86, taking out the sales to other companies which ought not to be included in making these per capita tables, and readjusting the per capita accordingly, and also readjusting the averages and the totals accordingly?

A. It probably is correct. I don't notice any change of any importance, except in the per capita of a couple of companies at the close which I understood all about when I made my table.

Q. I assumed you understood all about it.

Complainant offers and reads in evidence Exhibit 66, as follows:

"COMPLAINANT'S EXHIBIT 66.

4164

Table Showing Sales for Seven Massachusetts Cities for 1900, 1905, and 1910, also Giving the per Capita Sales for 1910.

(See Page 86, Prof. Bemis' Report.)

| Place— | Sales, 1900. | Sales, 1905. | Sales, 1910. | 1910 Per capita. |
|-------------------|-----------------|-----------------|-----------------|------------------------|
| Cambridge | 276,284,562' | 438,877,551' | 669,227,636' | 4,211' |
| Fall River | 169,251,157 | 321,119,341 | 495,612,338 | 4,155 |
| Lawrence | 138,314,175 | 261,888,830 | 417,864,700 | 3,793 |
| Lowell | 345,359,900 | 482,088,600 | 573,672,700 | 4,840 |
| Lynn | 183,843,000 | 358,776,700 | 601,590,700 | 5,742 |
| Springfield | 152,272,000 | 311,678,930 | 509,222,052 | 4,729 |
| Worcester | 264,333,900 | 410,641,700 | 637,570,200 | 4,367 |
| Totals | 1,529,658,694 | 2,585,071,652 | 3,904,760,326 | .... |
| Averages | 218,522,671 | 369,295,950 | 557,721,475 | .... |
| Per Capita | 2,260 | 3,490 | 4,512 | 4,512 |

4165 (Answer continued:) It does not differ from my table except for 1910 and then the per capita instead of being 4,586 is 4,512.

Q. Now you remember there was introduced in connection with the cross examination of Professor Marks a paper marked Exhibit 44 which happens to cover five of these seven cities that you selected, do you not?

A. I never saw the exhibit. I was present in the room when it was first mentioned; he was asked to take it to his room and verify it and that is the last I seen, heard or thought of it.

Q. Now, then, I will show you a copy of this exhibit?

A. I left town that night for Chicago.

Q. Not on account of this exhibit?

A. I did not, no.

Q. Now the Massachusetts reports keep the population as given by the various censuses so there is only changes once in five years?

A. Yes.

Q. Now in order to make an intelligent comparison of these things it is necessary to take into account not only the rates, but the population and the total sales and the number of meters, and something that will indicate the investment, is it not?

A. It depends upon what you are comparing; you don't need all of that for some comparisons.

Q. But if you want to draw any conclusions that will be of any aid to you as to the future in estimating what the return will be, you must take into account the investment, the sales and proceeds from the investment.

A. I tried to do that.

Q. Answer the question. I asked you whether that wasn't a fact?

4166 A. The investment and rate of return on the investment are of course very important questions.

Q. Can you get at the reasonableness of the return by taking into account the earnings, by arguing without getting, by arguing increased earnings from increased sales, without also getting into the question the increased investment?

A. That should be considered.

Q. It must be considered to reach an intelligent conclusion?

A. Yes.

Q. Where do you take that factor up in your report when you take up these increased earnings?

A. I did not take it up in that connection, although I think I referred to the fact as to the profits in thousands feet of sales in Massachusetts. Of course that has been with increase of sales and with all the investment necessary to take care of it.

Q. For instance, how does the population per mile of main in Massachusetts compare with the population per mile of main in Des Moines, take these seven places?

A. I worked out your sales per mile of main here as compared with those I gave on page 87.

Q. That don't answer my question. How does the population per mile of main in those seven Massachusetts cities compare with the population per mile of main in Des Moines?

A. I think it is somewhat greater.

Q. You know, don't you, they are very much more densely settled, take Fall River for instance, or Lynn, or Springfield?

A. Yes.

Q. Any of them?

A. Yes.

Q. So that it wouldn't do to compare the Massachusetts investment even with Des Moines?

A. Only tendencies, such as I have referred to. They are building into suburbs there the same as they are here. They are building into sparsely populated suburbs—Springfield is going out, I happen to know.

Q. Is there anywhere in your report where you take into account what you say is an essential factor, the investment in connection with increase of sales, in order to ascertain what the real profit would be?

A. I have shown that there has been an increase in Massachusetts. I had taken it for granted the investment had to keep pace with it and supply the demand.

Q. That don't answer the question. Have you anywhere taken the trouble to get the figures showing and increase in the investment in connection with the increase in sales; have you anywhere gotten those figures?

A. I studied your testimony on the subject, Mr. Lea's and Mr. Baehr's testimony on the subject, and Mr. Haines' report as to the needs of the next year, and the probable increase of sales shown up to date this year.

Q. Do you anywhere in making your argument on that proposition here take that increase of investment into account at all?

A. I may not refer to it; it will not increase as fast as your sales, I am sure.

Q. So that your argument upon that proposition leaves but one essential factor?

A. I think you will find a reference to it, but just what page I cannot recall. I am sure I referred to it, very sure, in this report somewhere.

Q. I found a sort of a general statement, about one line, 4168 but I did not see it taken into account in figures anywhere; was it?

A. I did not, because Mr. Hall had it in his report and I was not trying to duplicate that. The sentence that you refer to here is a sweeping one, that covered the ground. I made the distinct assertion there and that covered the ground.

Q. Let us see what it is?

A. "The increase of land, manufacture and holder capacity, meters and services will not have to exceed the increase in sales." I remember making that statement.

Q. What I want to get at is whether you carry that into your figures anywhere?

A. No.

Q. When you come to your figures, your ultimate result, you ignore it?

A. I do not ignore it, because I follow the position that I am not obliged to carry it in under those circumstances. I concede to you, in other words, that the investment might increase as fast as the sales. I do not believe it will.

Q. You stated a few moments ago there was no difference in the distribution cost of coal or water gas?

A. No appreciable difference; there is a little difference in condensation; a little difference in connection with matters that come up with naphthaline, and so on.

Q. What are the other matters besides condensation?

A. I do not recall at the moment.

Q. What is the specific gravity of coal gas?

A. I have forgotten.

Q. What is the specific gravity of water gas?

A. I have forgotten that.

Q. Which is higher?

A. I have even forgotten that. I have not tried to carry
4169 those details in mind.

Q. Are there any pressure conditions and therefore a difference as to the required sizes of mains between the two classes of gas?

A. There is not practically much difference in the pressure the companies are using in Massachusetts and here.

(Last question repeated.)

A. Very little. Not enough to make any appreciable difference in the computation of the total cost.

Q. What difference is there?

A. I cannot undertake to say.

Q. Which is the higher pressure, and therefore requires less in the way of main expenses?

A. Both can be sent through practically the pressures up to eight or ten inches.

Q. Please answer the question.

A. I should say I do not recall how the two behave. The difference is so insignificant it is hardly ever taken into account. Of course it is a small engineering matter and does not affect the figures I was using.

Q. Now then have you made any practical comparisons of the difference between the cost of distribution in a water gas plant and coal gas plant?

A. I have found no difference of any importance.

Q. I asked you whether you made any practical comparisons?

A. No.

Q. Never made any?

A. No. I am familiar with the literature on the subject and it

is never emphasized. In all the gas cases I never heard it brought up before.

4170 Q. Now referring to page 87, the miles of main, we have checked with you a difference of one mile, which is insignificant; the number of meters we have a little larger than yours in 1910. Where did you get your number of meters in 1910?

A. I took the report of meters and dictated the figures which I then added. There may have been some mistake in hearing what I was dictating or something of the kind.

Q. We have then the sales per mile of main for 1900, 2,499,042 against your 2,503,533?

A. Was that because you took different figures on mains? It is small anyway.

Q. I don't know just where it says it is small; yours is the result of a division?

A. Yes. 611 for the divisor.

Q. Now we get the sales per mile of main for 1910 3,642,500 instead of 3,701,863?

A. Is that because you use different base figures?

Q. I don't know what figures you used.

A. I used the figures given on this page, 1072 and for the sales I used the figures given on page 86. If you took out, I suppose you did, the sales, the two per cent sales to other companies, that would account for the difference. I do not think the division made here is wrong. If you took a different base, you got that slight difference.

Complainant now offers and reads in evidence Exhibit 67 which contains the necessary corrections on page 87 and adds the number of meters per mile of main for each of the five year periods, as follows:

4171

"COMPLAINANT'S EXHIBIT 67.

Table Showing Total for Year- 1900, 1905 & 1910 of Seven Massachusetts Cities, Giving Mains, Meters and Sales.

(See page 87—Prof. Bemis' Report.)

| Year. | Miles of main. | Meters. | Meters mile- of main. | Sales per mile of main. | Sales per meter. |
|----------------|----------------------|---------|-----------------------------|-------------------------------|------------------------|
| 1900 | 612 | 62,839 | 102.6 | 2,499,442 | 24,342 |
| 1905 | 825 | 103,222 | 125.1 | 3,133,765 | 25,044 |
| 1910 | 1,072 | 152,629 | 142.4 | 3,642,500 | 25,583" |

(Answer continued.) You have the same figures of miles of main, with the exception of one mile. You have the same meters, with the exception of 1910, when you have a few more, 54 more meters, which is insignificant. On the sales your difference I think is due to your excluding the two per cent of other companies.

Q. Which ought to be excluded?

A. Yes, I think so. For the purpose of my computation I did not

have the time, too busy to take it up. The general trend of the tables was not affected by that two per cent.

Q. How did you obtain your average price on page 88, by 4172 original computation, or took it from the reports?

A. By a computation; I added the receipts and divided by the sales. May I look over Exhibit 44, I never saw it before.

Mr. GUERNSEY: I would be glad to have you check it up. We would like to have it returned, however.

Q. Now turn to page 92, we do not check with you there at all. You have the manufacturing cost of \$6,369,168.43. We have it \$6,083,767. Making a difference of nearly \$300,000. How did you get your \$6,369,168.43?

A. I ran through all the reports of the seven companies for the five years. This does not relate to the three periods but relates to 1903-07-08-09 and 10 and subtracted the receipts from the residuals.

Q. We took the same year and subtracted the residuals. You took the manufacturing costs as given in the reports, you say?

A. Yes, that is what I tried to do.

Q. Well now in the reports you took the item, say turning to 26th report for 1910, on page 28, which is the page I happen to have open, and Cambridge is the first one; you took out works there \$286,476.56?

A. Yes.

Q. Now you subtracted from that the residuals given at the top of the other page \$65,553.98?

A. Yes, that is the method.

Q. And then you obtained your other costs how?

A. By taking the entire operating expenses, as for example, in Cambridge it was, \$461,021.66 and deducted from that the residuals; then the other would be the difference between the total and the manufacturing.

Q. But that is a mistake, isn't it?

4173 A. Now let me see. The total expenses for Cambridge would be \$461,021.66 less the residuals.

Q. Certainly.

A. That is what I just said.

Q. That is not what you just said as I understood you. Go ahead and tell us how you get this. We do not care what you said some time ago.

A. Now that gives the total cost, and the total operating expenses are obtained in the way I have just spoken of.

Q. You took \$461,021.66 and you deducted from that \$663,553.98?

A. I deducted from that \$663,553.98.

Q. What does that give you?

A. \$397,467.68.

Q. How did you get at it—we want to find out the difference between our figures and yours?

A. I do not remember; I did that some weeks ago.

Q. So you have no idea what method you did adopt?

A. I don't remember which one of those two methods.

Q. How should it be done?

A. You get the same total operating cost in either event. The ten million should be obtained by the addition of these various totals.

Q. Tell us how this should be worked out; I want to find out how you do it?

A. The way would be to take the works \$286,476.56 and deduct from that the residuals, and that will get the net cost at the works. Then add up the other four items, will get the other costs. The two added together should check with the total \$461,021.66 less the residuals.

Q. Now that is the net that we adopted and we run just a
4174 little less than \$300,000 you had on the manufacturing costs?

A. How about the total?

Q. On the total operating cost we run about \$40,000 over you—
\$10,056,852.97.

A. The total being reached—the division between those—the mistake must be in the distribution between the manufacturing and the other. The total does not differ as you give the figures, but a little less than \$40,000.

Q. I told you that at the start. I want to get this reconciled. I want to get the short way to do it. You don't know how you made your figures?

A. No, not as to the other costs. I know how I made them as to the manufacturing costs. I may have taken the total operating costs and from that deducted the manufacturing, getting the other costs that way, instead of working all three out in checking them.

Q. If you took your total manufacturing cost—

A. Deducted from the total operating, it should give the other costs.

Q. Of course by making that reduction it does give the other costs?

A. In doing the work instead of making the addition of distribution, management, incidentals and adding them all up, as I recall it, I got the manufacturing cost and total cost and subtracted the one for the other, to get the other cost, that is my impression of the way I did it.

Q. Let me ask you another question. Now you have something here you call price; what do you mean by price?

A. That was the same price obtained, just as it was in the previous tables where I took 1900.

Q. Where did you get that figure, \$15,188,092.63?

4175 A. From the addition of the prices obtained. For example, on page 88 for 1910, the receipts from gas are given as \$3,398,280.99 that year. Now the previous four years I took from the reports in the same way in which 1910 was compiled.

Q. We do not check with your figure.

A. What difference do you find in that?

Q. I cannot tell you exactly.

A. Did you find the figures on page 88 for those three years checked or nearly checked?

Q. They checked approximately. But now didn't you do this to get your prices: didn't you take your total operating expenses, your

depreciation and your profits and your manufacturing cost and add them together and call that the price as you call it?

A. That is the \$10,539,328.79.

Q. No, that is simply operating expenses and depreciation if you correctly describe it here. Didn't you take your total operating expenses, your depreciation, and your profits and your manufacturing cost and add them together and call that the price, as you call it?

A. Well, I can't say positively. Did my depreciation check?

Q. No, it didn't check, only about \$20,000 or a little over off.

A. How about profits from operation did they nearly check?

Q. Well, they are only off about \$500,000.

A. Well, I can't understand it. Page 88 is worked out on the same principle and you find it checks.

Q. That is why I want to get at how you made up these figures, because of these trifling differences?

A. It is a long job; I went through the whole five years.

4176 Q. When did you make these figures?

A. In Chicago.

Q. Did you make them yourself?

A. Yes; that is I dictated the figures that were taken down. I dictated from each report and then we added them up. Some I did myself and some were done on the adding machine.

Q. I do not see any short way to get at this. I think we will have to check this out if you can't tell us how you made this report up, to reconcile these things.

A. You can fall back on page 88 which does check, made up on the same basis, but for three different years, 1900, 1905, and 1910. which would be safe to use.

Q. Now let me see if I can help you a little. You have here a total operating expense and depreciation of \$10,539,328.79?

A. Yes.

Q. Now you have a profit from operation \$4,648,763.84.

A. Yes.

Q. Will you add those two figures for me?

A. Yes, they make \$15,188,092.63.

Q. That is what you call price, isn't it?

A. The word price is written opposite.

Q. Now, then, how did you get that price?

A. Well, it should have been obtained——

Q. How did you actually get it?

A. I don't remember, except I thought I took the prices and added them up.

Q. You find here, don't you, that you added your total operating expenses and depreciation to your profit from operation and you get what you call price here?

A. But you say they don't check.

4177 Q. I didn't ask you that. You find out if you add those two matters I gave you you get what you call price, checking to a cent?

A. Yes.

Q. Now isn't that the way you obtain what you call price?

A. I don't remember.

Q. Does the fact that they check to a cent there seem to you to have any suggestive force as to the manner in which you obtained those figures?

A. It rather tends to suggest that I took the price and operating expenses and depreciation and subtracted that from the price to get the profit.

Q. That is the way you think you got the profit then?

A. Yes. Now if I got it the way you think I did——

Q. I am not thinking; I am simply trying to find out?

A. What I believe is that the operating expenses and depreciation was subtracted from the price to get the profit; but I cannot state positively. I think that is why they check so completely there.

Q. There has been some, what Professor Marks called rough work there, to get some figures quickly?

A. Well, there was an immense amount of work, it was added over several times and I thought it was correctly added. I had to do it all myself. I did not suppose I had made a mistake in the manufacturing cost, which you say you find there.

Q. Let us take these companies now and run it down. I don't see any short way?

A. You can go back to page 88 which does check.

Q. It does not check these figures?

A. It covers three typical years.

4178 Q. It covers one year in this table on page 92?

A. It is really unimportant——

Q. Let me finish my question. It covers only one of the five years on page 92?

A. That is right. If you will pardon me, I think the way would be to go all over these figures again in the next day or two. I don't think it could be done in the court room; it is too big a job.

Q. I want to get a way that would be easy, of course. You haven't any recollection as to how you made up those figures, have you?

A. No. I think I made up the profit the way you speak of. I think I made up the sales by adding the sales for each year; and made up the manufacturing cost by deducting residuals; that I took the total operating costs and subtracted the manufacturing from the total to get the other; that is the way I think I did it.

Q. How did you get your depreciation?

A. I added up a series of figures given for depreciation in the report for each year.

Q. Well, now when you went to the report for Cambridge, for instance, which is the one we have before us, you found that depreciation in the profit and loss account?

A. I did; \$25,000.

Q. And separated from the operating?

A. Yes I separated it.

Q. You obtained then the profits, you think, by a mere matter of subtraction; you didn't take them from the reports?

A. No, I think not.

Q. Then you don't know whether this will check with the profits from operation as shown by the reports or not?

1179 A. No.

Q. Now passing this for the present——

A. By the way did you find the sales check?

Q. They didn't check exactly.

A. I thought they did; I looked at the wrong figures; they are off only about four million. What was your figure on that?

Q. \$16,929,868,446.

A. There is some difficulty on the depreciation of the two companies, where electricity and gas are united. I had to use my own judgment there.

Q. The reports apportion it definitely?

A. Where they did not I did.

Q. In what cases didn't they do it?

A. I was under the impression one of the companies didn't for one year.

Q. As a matter of fact you will find the reports apportion them if you will examine them?

A. Maybe.

Q. Passing this then for the present, to give you an opportunity to freshen up on it——

A. By the way, did you say the other costs pretty nearly check?

Q. No.

A. Oh, it was the total operating nearly checked.

Q. I said the costs were off about 320 odd thousand dollars.

A. But the total operating nearly check?

Q. That is only off about \$40,000. Now somewhere you base some claims here on the average depreciation of these Massachusetts companies for this five year period?

A. What page are you referring to?

Q. I don't remember the page.

4180 A. I don't remember referring to it in that way.

Q. Didn't you figure it out in cents, three and a fraction—here it is on page 91.

A. I stated after that allowance they had this 26.3 cents left in 1910.

Q. Or 3.37 cents for depreciation; you somewhere else in your report referred to this, didn't you?

A. I don't remember any other place.

Q. Now I want to call your attention to some of these specific figures for depreciation for this five year period; you have got the 1910 report before you?

A. Yes.

Q. Well, look at Cambridge?

A. I have it.

Q. Now, Cambridge charged off there \$25,000?

A. Yes.

Q. And the sales were about 670 million?

A. Yes.

Q. That wasn't quite four cents?

A. That is right.

Q. But in 1909 they charged off the same amount, a little over four cents?

A. Yes, it varies from year to year very much with all the companies; some years nothing and some years a good deal.

Q. Your figures include companies that charged off nothing?

A. Yes, I took the aggregate.

Q. Go on with 1910—Fall River charged off a little over ten cents a thousand, didn't it?

A. Yes.

Q. And Lawrence didn't charge off anything, did it?

4181 A. I don't discover anything that year—yes, wait a minute. \$7,000 charged off in Lawrence, but it doesn't appear on that page, on page 78, where I strike it now. Whether it is on gas or electricity, I don't know.

Q. Where do you find it on page 78?

A. Depreciation, \$7,000 near the top.

Q. Now that is on account of the electric proposition, isn't it—turn to page 226?

A. Yes, on that page depreciation is separated as between electricity and gas, and it is all electricity.

Q. So that there was no depreciation that year for Lawrence?

A. No.

Q. Now then take Lowell; what does Lowell have for depreciation in 1910?

A. \$9,886.04.

Q. What were its sales, we had the other day—they were \$573,672,700?

A. Yes.

Q. That was a good deal less than two cents, wasn't it?

A. Yes.

Q. Now take Lynn for 1910?

A. I will have to turn to another part of the report. I believe that was combined gas and electricity.

Q. Turn to 226 and you will get it.

A. Lynn, gas, \$1,908.91.

Q. The sales were 605 million, and that would be about .3 cent a thousand?

A. Yes.

Q. Do you think that from figures that vary as much as these we can assume there is any consistent theory adopted there which would make a basis here?

4182 A. No, except that if you take a series of years, I think most companies—I didn't draw my four cent rule from any of these Massachusetts plants.

Q. Somewhere in your argument you say you allow four cents which is more than the average in Massachusetts, trying to confirm your estimate as a liberal estimate.

A. I don't remember whether I said that or not.

Q. As a matter of fact we have no information here which will

enable us to draw any conclusion from this Massachusetts depreciation as to what would be a proper amount here?

A. No, I don't attempt to draw it.

Q. So that so far as that question is concerned we may take it as conceded that you do not claim anything for the averages in this Massachusetts depreciation?

A. No, only for the difference in cost, including in cost depreciation.

Q. It also goes without saying that this same irregularity and lack of any reasonable basis for depreciation here in Massachusetts goes into these costs when you include that item in the costs, don't it?

A. Not in the aggregate, because all the costs have got to be covered the same time in the course of four or five years.

Q. Well go back and see if there is any similarity later?

A. It is the same for any one year, will run through for any one of them.

Q. Just take this for a minute, will you: if you turn to Cambridge, there was \$20,000 depreciation against sales of 468 million, wasn't there in 1906.

A. I am looking for the page to verify them; I assume it is correct.

Q. I believe it is. That would run a little over four cents there?

4183 A. Cambridge had that year \$33,000 charged to depreciation and 439 million feet of sales.

Q. What year are you talking about, 1906?

A. I am using the document you handed me; it is for 1905; it is about eight cents there.

Q. Now I want to confine myself to your five years, to see what conclusion we may properly draw from the averages that you take?

A. Cambridge in 1906 had 468 million feet of sales, and \$20,000 of depreciation.

Q. Cambridge was a little over four cents?

A. Yes.

Q. Now take Fall River, what did it have?

A. I haven't discovered anything in that year.

Q. Nothing whatever?

A. I don't discover anything.

Q. What were its sales, about 300 million?

A. 371 million feet.

Q. Now then take Lawrence, what did it charge off?

A. \$20,000.

Q. What were its sales?

A. 290 million feet.

Q. So that it charged off just about seven cents?

A. Yes.

Q. Now take Lowell?

A. I don't discover anything charged off that year.

Q. Yes, we found something.

A. No, I think not.

Q. Well, let us settle this now, because this goes into these other figures?

A. I haven't found anything on this page. There is another page somewhere here it might appear, which analyzes; yes, I think there is a page that analyzes all these things.

Q. Suppose you try to find that if you can. This will come up again in reconciling this matter we have been referring to; if we made an error, I would like to know it.

A. In the appendix I don't find anything for depreciation, while on page 158 I find charged to depreciation and other reserve \$27,916.62.

Q. That checks with us. Of course a person familiar with the reports knows where to look for these things?

A. I don't find it there. Usually it should be here. In almost every case it is here.

Q. That amount- to a little over five cents, fully five and a half?

A. Yes.

Q. On sales of 506 million?

A. Yes.

Q. Now take Lynn, what did they charge off?

A. I am not sure from this report which figure you can take for Lowell.

Q. You made up the depreciation for this year and you show it here in the aggregate on page 92 for these companies, now don't you know how to find those figures in the report?

A. Where there is some mistake made by the statistician of the gas commission making up his report, it is somewhat uncertain which figure to take; but from the fact, the way the profit and loss account is made up, there does not appear to be any room for the depreciation reserve addition.

Q. Turn to the statement of the Lynn company?

A. I have to change what I said that it wasn't in both places. I turned to the wrong place. They did check.

4185 Q. All right, let us get Lynn.

A. I don't find anything any other place.

Q. They had sales of 410 million?

A. Yes.

Q. Now then take Springfield?

A. \$74,645.97 in one place.

Q. Isn't there a note at the bottom of the page saying that is not all from that year?

A. Yes, it says, a portion of the amount credited to depreciation is not derived from earnings for the current year, but it is charged off I should judge just the same.

Q. Look at the profit and loss account and see how much they charged off and see whether we can check on that?

A. I think one would have to study the year before and the year after to work it out.

Q. You have it in your report here \$521,089.56 on page 92?

A. I think I should have taken and think I did take the whole \$74,645.97 as being appropriated to the five year period.

Q. Then you took everything that was charged off all these other years, didn't you, or do you know which one you took?

A. I do not absolutely, but I think I took whatever was in depreciation under the term depreciation and added to the reserve.

Q. Our figures on that are \$71,112.57?

A. That is so given on page 121 of the appendix, while on page 158 of the text it is \$74,645.97.

Q. Read the foot note?

A. A portion of the amount credited to depreciation is not derived from earnings of the current year.

Q. So that wasn't a part of that year's operation of that plant?

A. That is true.

4186 Q. If you take that year's operation of the plant, the amount we have it here is \$71,112.57.

A. I should judge so.

Q. And that amounts to something over twenty cents a thousand?

A. Yes.

Q. And then taking the last one, we have Worcester, they charge off how much that year?

A. \$25,385.35.

Q. And the sales were 444 million?

A. Yes.

Q. So that they charge off between five and six cents?

A. Yes.

Q. So that for the year 1906 the amount charged out of the earnings of that year on account of depreciation by these seven companies varied from nothing in the case of two of them, to over twenty cents in the case of one of them?

A. Yes.

Q. Do you think that affords a basis for determining the proper amount of depreciation in Des Moines?

A. No; but I do think that it shows the experience over a series of years. You can't take one year in Massachusetts for their depreciation.

Q. These figures here are sufficient to show that the depreciation during that year was not charged off on any consistent uniform theory?

A. Certainly; as in the case of the Pennsylvania Railroad, they charge off the same as the Massachusetts companies do. Until this year almost every railroad in the United States has. They are just beginning to make that change.

Q. We will stick to this, if we may. Taking this year, 4187 1906, I could find in it a precedent for either charging off nothing or twenty cents or most anything I wanted to?

A. Yes, if you selected a single instance, which I didn't do. Before going through that I will say that I know the results will be practically similar for every single year.

Q. You know, do you not, there is not one of those years where

the results will indicate that depreciation has been charged off upon any consistent theory?

A. For any one year, for any one company they do not attempt to apply to a consistent theory of depreciation in Massachusetts; that is right.

Q. You know, do you not, that the results for these five years do not warrant the conclusion that any consistent theory in charging off depreciation has been adopted.

A. Yes, certainly.

Q. Then it being conceded that the results for these five years do not warrant the conclusion that these companies have adopted any consistent theory in charging off their depreciation, is it your contention that the results of these companies may properly be used as a test of the accuracy of your claim of four cents here?

A. No, I do not so use it.

Q. Now then is it your claim that in the same connection, in view of the same circumstances that operating expenses which include these inconsistent depreciation charges may be taken as a criterion for determining a correct basis for operating expenses elsewhere?

A. In the long run their allowance for profit is of some value.

Q. Answer the question, please.

(Last question repeated.)

4188 A. All I can say it has some bearing, yes.

Q. You think then that it may properly, in view of these circumstances, in view of the dissimilarity in conditions, in view of the difference in character of the plants be taken as a fair criterion for determining the proper operating expenses here?

A. No, I don't consider that as more than one point in ten. The great thing is the local condition, which I have emphasized all through the report up to the end.

Q. You testified in your judgment an 85 cent rate would be fair in Des Moines?

A. Yes.

Q. Upon what figures did you base that conclusion? give us the operating cost per thousand which you took?

A. On page 71—

Q. I want you to give me the operating cost per thousand you took to reach that conclusion, if you did go into it with that detail, if not, just state you didn't do so?

A. I reached it by the five year basis shown on page 71.

Complainant moves to strike the answer and asks to have the question repeated to the witness.

(Question repeated.)

A. I figured at 63.8 cents as the operating cost, with the four cents in it for depreciation.

Q. You took that as your operating cost including depreciation?

A. Yes.

Q. What did you take for your sales?

A. The sales of 1910, which I recognized as too favorable to the Company, because I should take the estimated sales of the future—but I did take 531,931,000 feet. I have answered that on the 4189 basis of the five years' average for all expenses, save manufacturing, taxes and leakage, although I have held and do hold that the four year basis which gives a larger profit and has a smaller operating cost is more appropriate; but in this figure I took the five year basis, more favorable to the company.

Q. What I want to get at, whether you changed your 63.8 cents or not?

A. That is my maximum figure; it is too high.

Q. You gave me a few moments ago 63.8 as the cost per thousand including depreciation, which you use in reaching your conclusion that 85 cents was a reasonable price for gas in Des Moines. Now I want to know whether you adhere to that figure or change it; please answer that question.

A. That is my maximum figure which I had in mind when I made the statement as a maximum figure. I considered it too high but I used it.

Q. Now on page 3760 you were asked, what in your judgment was the reasonable value of the property of the Des Moines Gas Company used in the business of manufacturing and distributing gas in the city of Des Moines on the 31st day of December 1910. You said one million six hundred thousand dollars. In what sense did you use the word value?

A. The cost of duplication, based on the reconstruction cost as shown by the last five years' experience of the company, with an allowance for depreciation.

Q. Then you took as your basis for the value the cost of reproduction.

A. As shown by the last five years by the books of the Company for the last five years.

Q. Do you take as your basis for value what it would actually cost to reproduce the property?

4190 A. Applying the unit cost for the last five years; I reject the paving.

Q. Did you apply them because you believe they would be the actual cost of reproducing the property?

A. Aside from paving I believe they would. The unit cost I took for the last five years did include all the cutting through paving they had to do for that period.

Q. You didn't answer my question. I want to know whether you applied these costs because you believed that they represented the actual cost of reproducing the property as of December 31?

A. Yes, aside from paving and allowing for depreciation. I must explain by paving, I mean aside from paving put down since the mains were laid.

Q. You didn't make any computation at all, did you?

A. My one million six hundred thousand was reached as shown

all through my report, by two methods which seemed to harmonize at the close.

Q. Did you make a computation, taking for instance four inch main, six inch main, and so on?

A. Yes, that is in the report here.

Q. Now, then, did you go through the manufacturing plant the same way?

A. No, but I had before me there, as I stated, I took a different process to some extent there; but I did as to the distribution system.

Q. Of course you couldn't make such a valuation as you have stated you did make without going through the inventory item by item?

A. As to the manufacturing plant, I couldn't.

Q. You couldn't as to the plant as an entirety, could you?

A. In reaching my judgment—

4191 Q. No, I asked you whether you could make a valuation of this plant based upon any unit prices without going through the inventory and applying those unit prices to each item?

A. It should be done to make a complete inventory.

Q. You haven't done that?

A. No.

Q. You haven't done anything more than what appears in your report along that line, have you?

A. Some things I have not stated there I have done. I have compared the unit cost, for example, of pipe of different sizes with other unit costs which I have and with the unit costs in this case in 1895.

Q. Did you compare them with the unit costs of pipe in Cleveland in 1907 when you were there in the Water Works case and you and Professor Marks were testifying in Buffalo?

A. No, I didn't.

Q. As a matter of fact your unit prices of pipe in Cleveland ran about \$37 at the time you and Professor Marks were testifying about pipe in Buffalo?

A. I don't remember.

Q. Do you remember Professor Marks' testimony here as to the prices in Buffalo?

A. I heard his testimony.

Q. You frequently seen him use this blue print—he used it in New York?

A. He used a blue print in New York, not the same one.

Q. He used it in Buffalo?

A. He used them there and here; I have not examined them to see how they compare.

Q. As a matter of fact you have not attempted to compute
4192 by going through the inventory the replacement cost of this property?

A. I have not completely; I have studied the distribution system a good deal and got the prices of pipe and freight.

Q. You haven't any overhead?

A. All the overhead that was charged on the books the last five years, I used, showing the company's estimate of their own overhead.

Q. Have you added any overhead to the unit prices?

A. Only what the Company saw proper in their own bookkeeping.

Q. You added that to the unit prices which you took?

A. That was in the unit prices.

Q. Did you add any overhead in the unit prices you took?

A. I did not add any except what Mr. Hall gave.

Q. You used no unit costs except those given by Mr. Hall?

A. Those were the only ones. I made that other comparison of book costs, but he used it too.

Q. His comparison of book cost did not give the unit costs for parts of this plant?

A. No, except for the last five years. Over a third of the plant was built in the last five years, especially the distribution system.

Q. Are you sure?

A. Yes, I think so.

Q. Now I will ask you a question and I would like to have you direct your attention to that. What did you take as your unit price for cast iron pipe on the cars in Des Moines?

A. I took whatever he had in his report; I checked it up and found what the prices had averaged for the last three or four years. I don't remember without I turn to the report.

The MASTER: Please answer the question.

4193 Q. You took the unit prices per ton f. o. b. cars Des Moines that is given in that report?

A. Yes.

Q. It don't give any?

A. It gives it per foot here.

Q. It doesn't give any unit price per ton f. o. b. cars Des Moines?

A. No, what he gave was per foot.

Q. Now then what did you get for the distribution system?

A. \$1,123,906 on page 54.

Q. What did you get for the works, including holders and everything there?

—, \$525,274.

Q. What page are you reading from?

A. Page 54.

Q. Of your report?

A. Yes. That is new, without depreciation.

Q. That is not new or anything of the kind, is it? That is the book figure?

—, That is the book figure Mr. Hall worked up by starting from 1895 and making various changes?

—, —.

A. The last column.

Q. I am talking about the figure \$525,274.

A. That figure I took from him. It has in it so much that should not be there, that should be taken out, such as the holder No. 1,

which has been scrapped, that it is too high; taking all the depreciation out in view of that I used the figure \$1,600,000.

Q. You say this figure includes that holder No. 1; was that scrapped about 1895 or after?

A. After.

4194 Q. When was it scrapped?

A. The date has gone from me; in fact I am not sure. I know it was not in the present appraisal and was in 1895; so it was scrapped between.

Q. You are sure it was in 1895?

A. Yes.

Q. What did you put land in at?

A. I put the land in at the cost, plus about \$35,000 making about \$70,000. I think there was more land in the works that had not appeared as land on the books, so I did not feel that \$70,000 included all that was there; but that was all we had in evidence as there.

Q. What do you mean by we had in evidence?

A. I found in the evidence—by reading I did not find a valuation of over \$35,000; but there was some land I think charged into other items.

Q. That is the way you made up this reproduction cost of this property?

A. Yes, \$1,123,906 was for the distribution system and the rest was the works and office as shown on the books, less some depreciation.

Q. Did you know why your figures on mains run within less than \$2,000 of Marks' the price per ton that he put ran four or five dollars on the average under the price you took yourself?

A. I didn't look over Marks' unit cost at all.

Q. That is a part of the evidence you have not read?

A. I especially devoted myself to the witnesses of the company on that and Mr. Hall's record.

Q. So that what you have done as a matter of fact is to take these costs that Mr. Hall worked out for the last five years and
4195 multiplied them by the amounts as given in the inventory for the distribution system, taking in one instance the figures from Mr. Lea where Hall did not give them, and taking the next higher size of pipe in one or two instances where Hall did not give them?

A. Yes.

Q. And then you took the book costs and put those things together with what you say about real estate, and that is what you done as a matter of fact?

A. Yes, sir.

Q. You testified yesterday in substance—I haven't the transcript of it here—that Mr. Haines said, or the Company's witnesses said that the cost for boiler fuel would be less next year this coming year, didn't you?

A. Yes.

- Q. That is a fair statement of what you intended to say?
- A. No, it is not all that should be said in that connection.
- Q. I am asking you about what you did say.
- A. I think it is a fair summary.
- Q. You said you predicated that on the statement contained in defendant's Exhibit 18, that was mislaid?
- A. Yes.
- Q. Now, then, there is no such statement in that exhibit?
- A. There is a statement as to how a small investment will reduce the operating costs about \$6,000.
- Q. There is a recommendation in this exhibit, is there not, of a new investment?
- A. Yes.
- Q. And it is stated here that it is thought that would reduce these expenses if it was made?
- 4196 A. Yes, about 54% on the investment as I remember the figures.
- Q. And that investment has not been made up to the present time?
- A. I don't know.
- Q. So that Mr. Haines did not state or attempt to state what the boiler fuel expense would be in this exhibit?
- A. He attempted to state that that investment which was endorsed, I read in other documents there, there would be that saving.
- Q. Those documents will go in so I won't stop for that. So that Mr. Haines did not say what you said he said on your cross examination yesterday?
- A. I believe he did. I think I interpreted him fairly.
- Q. You didn't quote him?
- A. I didn't have his exact language before me.
- Q. Nor the substance of it?
- A. I had the substance of it in mind.
- Q. All that you have for the basis of your statement was a recommendation on the part of Mr. Haines and which has not been acted upon?
- A. That is all I attempted—
- Q. I want to know whether it is not true that all you had for the basis of your statement was the recommendation on the part of Mr. Haines which he said he thought would result in a saving and which so far as you know has not been acted upon?
- A. I thought it had been endorsed by the company.
- Q. Had you any knowledge except what appears here?
- A. No.
- Q. This does not show whether it was acted upon?
- A. No, but every endorsement was favorable, but I don't know the final action.
- Q. Is this paper marked Exhibit 68 a copy of the contract
- 4197 for your employment in this case by the city?
- A. I think it is an exact copy.

Complainant offers and reads in evidence Complainant's Exhibit 68, as follows:

Objected to on the part of defendants as improper and not cross-examination.

Exhibit 68 is as follows:

"No. 1582.

This Agreement, Entered into this day by and between Edward W. Bemis of New York City, party of the first part, and the City of Des Moines, Des Moines, Iowa, party of the second part,

Witnesseth: That the said Bemis agrees to be present in Des Moines and to assist when needed in consultation and in attendance upon the trial of the gas case now pending, due notice, however, being given by the city when such attendance is needed in time to prevent conflict with other engagements.

The City of Des Moines of the second part on its part, in consideration of the performance of the services above set forth agrees to compensate the party of the first part upon the basis of Fifty (\$50.00) Dollars per day for the time engaged in the work for the City, together with the necessary traveling expenses from Chicago or New York or elsewhere to Des Moines and return depending upon the travel necessary for the party of the first part. The City shall also pay living expenses while in Des Moines. The settlement for such services to be had and payment made in full at the close of each calendar month for the work of the month, said payment to be in cash or in paper, negotiable at par for cash in Des Moines.

Dated at Des Moines, Iowa, this 21st day of July, A. D. 1911:

EDWARD W. BEMIS,

Party of the First Part.

CITY OF DES MOINES,

By JAMES R. HANNA, Mayor.

Party of the Second Part."

4198 Q. I want to call your attention to one feature of it. This contract says that you are employed, that you agree to be present in Des Moines and to assist when needed in consultation and in attendance upon the trial of the gas case now pending. Calling your attention to that, your understanding of your employment in this case is that you were employed to assist in the conduct and preparation of the case?

A. Yes, just as your witnesses are.

Complainant moves to strike the answer as to our witnesses as not responsive.

Q. And what you undertook to do was to review and answer the testimony that was introduced by the complainant?

A. Just as your witnesses are doing all the time.

Q. What you undertook to do was to review and to answer the testimony of the witnesses for the complainant?

A. So far as I thought they were wrong. Not that I must dispute and disagree with everything they said.

Q. And that is what you have been trying to do?

A. To show their mistakes where they made them and show my position where I believe it was sound.

Q. You are not a gas expert, are you?

A. I have testified repeatedly that I have been a student of these questions, a special investigator, though I never was in the gas business.

Q. You have been a special investigator just as you have been in this case?

A. Perhaps, in most cases along this line.

Q. To do just the same work you have been doing in this case?

A. Largely.

Q. Now then you are not a gas expert, are you, except in
4199 the sense that you are an expert in endeavoring to analyze and discredit the testimony against municipalities?

A. I would not say yes to that question. I would say special investigator of financial and statistical accounts, rather than prices of manufacture.

Q. You have endeavored to live up to your contract and earn your money?

A. I have endeavored to do what was right to help the city.

Q. Your position has been that of a sort of assistant counsel to go through these things and analyze them and to show how to meet the various claims made by the company; that has been the nature of the work you have been doing, hasn't it?

Mr. BYERS: I want to make the objection here that this is improper and improper cross examination, and it seems to me that the character of the examination has gone far enough.

Mr. GUERNSEY: I think the Supreme Court has stated emphatically that a man ought not to be a witness and an advocate.

The MASTER. That had reference to attorneys.

Mr. GUERNSEY: I think this proper and I would like to get the answer to my question.

(Last question repeated.)

A. The work of a counsel technically I cannot describe. I have given advice when asked by the attorneys, and I have prepared data so far as I could which they asked me to prepare, or which I thought should be. Whether you call that being an assistant counsel, I can't say.

Q. The general nature of the work that you have done here has been what I have described, has it not? That is, it has been
4200 along the line of taking this testimony and trying to meet it, trying to pick out things that would show it was wrong?

A. It is trying to determine from the testimony the reasonable price of the cost of gas. I have studied Mr. Hall's testimony as much as that of Mr. Lea and Mr. Baehr.

Q. Hasn't the general nature of the work you have been doing here been of the character I have described, going over the testimony with a view in the first place of helping to discredit it on cross examination, and with the view in the next place, of yourself taking it and analyzing it and discrediting it on the stand?

A. I would say yes, so far as I believe it wrong; so far as I believe it right, not.

Mr. GUERNSEY: I believe this is all. I want it understood, how-

ever that we have not finished our cross examination as to these matters we wish to verify by the witness.

Mr. BYERS: We want to serve notice on counsel now that they produce every one of the contracts of every witness of their own that is here.

At this time an adjournment was taken until 1:30 p. m.

4201 1:30 P. M., WEDNESDAY, September 27, 1911.

Mr. BYERS: Defendant at this time and as part of the testimony of Jansen Haines offers in evidence Exhibit 18 and reads into the record at this time the following portions:

DEC. 15TH, 1910.

Des Moines Annual Estimate, 1911.

Mr. Walton Clark, Second Vice President.

DEAR SIR: I give below a summary of the conditions at Des Moines:

| | | Increase in gas accounted for. | Increase in gas sent out. | | |
|------------------|-------|-----------------------------------|------------------------------|--------------|--|
| Year | | | | | |
| 1909... | 7.5% | | 7.2% | | |
| January 1910... | 5.8% | | 5.8% | | |
| February 1910... | 7.3% | | 7.7% | | |
| March " | 8.5% | | 5.6% | | |
| April " | 7.7% | | 6.4% | | |
| May " | 15.4% | | 13.3% | | |
| June " | 12.9% | 6 Mos. 8.9% | 4.6% | 6 Mos. 7.2% | |
| July " | 5.8% | | 2.5% | | |
| August " | 5% | | 11.3% | | |
| September " | 8.5% | | 4.5% | | |
| October " | 8.3% | | 4.5% | | |
| November " | 7.1% | | 5.2% | | |
| December " | 3.0% | 12 Mos. 7.6% | 7.0% | 12 Mos. 6.4% | |

Maximum daily output:

| | Actual. | Local estimate. | C. W. Hare's estimate. |
|----------------|---------|-----------------|---------------------------|
| Dec. 1909..... | 2013 M | | |
| Dec. 1910..... | 2228 M | | |
| Dec. 1911..... | | 2451 M = 10% | 2451 M = 10% |

4202 Maximum output:

| | | Per day. |
|-----------|----------------------------|----------|
| Actual | 1909-10..... | 2015 M |
| " | 1910-11..... | 2228 M |
| Estimated | 1911-12. 10% increase..... | 2451 M |

| Plant. | Capacity per day. | Present net cap. | Net cap. after changes. |
|------------------------|-------------------------|------------------------|-------------------------------|
| Generators: | | | |
| Reserve | 1800 M | | |
| Net | 1200 M | | |
| | 1200 M | | |
| | 300 M | | |
| | 300 M | | |
| | | | 3000 M |
| Purifiers: | | | |
| 4 Boxes 20' x 20' x 8' | | | 3360 M |
| Station Meters: | | | |
| | | | 5000 M |
| Oil Storage: | | | |
| | 64,000 g. | | |
| | 300,000 g. | | |
| | 300,000 g. | | |
| | 664,000 g. = 68 days | | |
| Holders: | | | |
| Relief | 160 M | | |
| Storage | | 300 M | |
| | | 1100 M | |
| | | | 1400 M |

4203 Works: An examination of the preceding page shows that we have ample manufacturing capacity to carry us safely through the winter of 1911-12, but that our purified storage is getting rather small in comparison with our send out. It is possible that the send out for the winter of 1912-13 may require an addition-holder by that time. In order to have such a holder in time, it would be necessary to start the foundations for the holder in 1911, but it would not be necessary to start these foundations until late in 1911.

We therefore ask an appropriation of \$30,000 for the foundation and connections for a new 2,000,000 cu. ft. holder, with the understanding that if this expenditure be authorized, no money will be spent until late in 1911, and then only if we shall satisfy you that the send-out at that time indicates that we may expect a considerable increase in the winter of 1912-13.

Req. #— Holder Foundations, etc..... \$30,000

Purification: Our purifiers at Des Moines are 8' deep, with water seals, and are so arranged that the gas enters the boxes in the middle and divides, part going up and part going down through the oxide. We find that this arrangement causes trouble from deposition of tar

on top of the oxide of the lower layer, and the gases do not flow evenly through the two halves of the boxes.

4204 We wish, therefore, to rearrange our connections so that gas will enter the bottom of each box, which will also give us the opportunity of using a tar-catcher in the bottom of each box to supplement the work of the P. & A. extractor. This, however, will result in a considerable increase in back pressure through these boxes, and therefore, in addition to altering the connections, we wish to replace the present water seals with dry lutes. The water seals of a purifying box not only acts as a seal for the box, but also as a safety valve for the escape of gas in the event of any stoppage beyond the purifiers, and the replacement of these seals with the dry lute type of construction will make it necessary to install some sort of blow-back device which will relieve the pressure in case of stoppage. We, therefore — in our summary an item covering the re-arrangement of the purifier seals the changing of the seals from water seals to dry lutes, and the installation of a safety blow-back. This work is covered by—

Req. #183. Changes to Purifiers, etc., (rep. \$3,000) \$5,000

Works Office: The Des Moines situation has grown to a point where our present office facilities are cramped and insufficient. The room used for the Works Office contains also two station meters, the photometer room and the governors, and we recommend the addition

4205 of a second story to this building, in which can be placed our office photometer room and additional laboratory apparatus, which we need but for which we have at present no satisfactory room. The estimated cost of this extension to our Works Office is covered by—

Req. #184. Works Office Extension \$3,000

To cover the shifting of the present photometer room and the fitting up of the laboratory with apparatus for the simpler grades of work we include—

Req. #190. Photometer & Laboratory Equipment (Rep. \$250) \$500

Boiler Fuel Scales: Our boiler fuel at Des Moines consists principally of a local coal which is so high in sulphur that it can be stored only in small quantities and not for length of time, and consequently is used practically from the cars to the boilers. This gives us a constant check on our boiler fuel consumption, and for our daily consumptions we have been depending upon keeping track of the number of barrow loads of coal brought in. This, however, is not satisfactory, and we wish to purchase and install scales for weighing the boiler fuel, these scales to be located in the industrial railway which is now used for handling boiler fuel. This improvement is covered by—

Req. #161. Boiler Fuel Scales \$500

4206 Real Estate: Mr. Haines again calls our attention to the question of the possible purchase of additional real estate ad-

joining our present gas works. The greater part of the block adjoining our holder lot could probably be purchased for in the neighborhood of \$35,000 and it would undoubtedly be to the advantage of the company to own such additional property, as it would enable us to locate our proposed new holder on it. If we do not acquire this additional property, we expect to locate the holder on the present holder lot, where the available ground is so small that the holder will have to be rather smaller than we otherwise would make it, or of rather unusual dimensions; That is, it would be very tall for its diameter. If we had the property suggested by Mr. Haines, it would leave this other land for normal works extensions.

Our real estate at present consists of slightly over five acres, and on this land we can get, with a fair degree of ease, a manufacturing capacity of from five million to seven million feet of gas, of which about one quarter could be coal gas. Our present output is something over two million feet per day, and I believe the amount of plant that can be put on the present land is sufficiently large to justify us in not purchasing any additional land at this time, although I recognize that if not purchased at this time, it probably cannot be purchased at all in the future, except at an increase in cost that would probably be prohibitory.

4207 In this connection it should be borne in mind that coke oven gas has been suggested for Des Moines. If the conditions should ever make it wise or necessary for us to install a large coke oven plant at Des Moines, the present site, even with the additional land suggested by Mr. Haines, would not in my opinion, be large enough, as a coke oven plant requires ample room for the handling of the large amount of coal and coke involved in this process. In view of the above facts, I mention this recommendation of Mr. Haines, and submit it to your consideration without recommendation, but I have not included in my summary any money for additional real estate.

Waste Heat Boiler: We recommend the installation of a waste heat boiler, on the 10' 6" set. The estimated cost of this apparatus would be \$11,000 and the estimated saving in boiler fuel, etc., per year would amount to \$6,016 or a gross return on the investment of 54.7%. This is covered by—

Req. #185. Waste Heat Boiler on 10' 6" Set..... \$11,000

Miscellaneous Works Improvements: To cover miscellaneous works improvements, the need for which may be shown during the year, we include an item of—

No Req'n. Misc. Works Improvements \$3,500

4208 Distribution:

Pressure Mains: To cover the estimated needs for trunk mains, which will be taken up in detail later, we include an item of—

No Req'n. Miscellaneous Pressure Mains..... \$20,000.

Small Mains, Meters & Services: It is estimated that Des Moines will need in 1911 for—

| | | |
|--------------------------|----------|-----------------|
| Small Mains..... | \$40,000 | |
| Meters and Services..... | 27,000 | |
| | | <u>\$67,000</u> |

4209

Summary.

Works:

| | | | |
|------------|---|----------|-----------------|
| Req. #—. | Holder Foundations, etc..... | \$30,000 | |
| Req. #183. | Changes to Purifiers, etc. (Rep. \$3,000) | 5,000 | |
| Req. #184. | Works Office Extension..... | 3,000 | |
| Req. #190. | Photometer & Laboratory Equipment (Rep. \$250)..... | 500 | |
| Req. #161. | Boiler Fuel Scales..... | 500 | |
| Req. #185. | Waste Heat Boiler on 10' 6# Set. | 11,000 | |
| No. Req'n. | Misc. Works Improvements..... | 3,500 | |
| | | | <u>\$53,500</u> |

Distribution:

| | | | |
|---------|---------------------------|----------|------------------|
| No Req. | Misc. Pressure Mains..... | 20,000 | |
| | Small Mains | \$40,000 | |
| | Meters & Services..... | 27,000 | |
| | | | <u>67,000</u> |
| | | | 87,000 |
| | Improvements | 137,250 | |
| | Repairs | 3,250 | |
| | | | <u></u> |
| | Total | 140,500 | <u>\$140,500</u> |

Yours truly,

ROLLIN NORRIS.

Recommended for Approval:

Second Vice President.

4210 Mr. BYERS: Taking the exhibit up separately the defendant reads into the record the copy of the letter bound as part of Exhibit 18 addressed to Mr. Rollin Norris for Walton Clark, Second Vice President, Philadelphia Pennsylvania, under date April 8, 1911, purporting to be a copy of a letter written by the manager of the Des Moines Gas Co., to Mr. Rollin Norris.

Also the letter which is bound with and as part of Exhibit 18 written upon the letter head of the Des Moines Gas Company under date of March 9, 1911, and addressed to Mr. Jansen Haines manager Des Moines Gas Company which is signed by J. I. Vincent, Engineer. And attached apparently to that letter, and it is offered as part of it is a lead pencil sketch of certain lots and blocks abutting on the Des Moines River from Raccoon street to Shaw street.

Also the letter written upon the letter head of the Des Moines Gas Company, office of the Second Vice President under date of January 6, 1911, with the words "annual estimate 1911" written across the left hand upper corner of the letter and which is signed by Rollin Norris for Walton Clark Second Vice President, as follows:

JAN. 6TH, 1911.

Mr. Jansen Haines, Manager, Des Moines, Iowa.

DEAR SIR: I enclose herewith for your files a copy of a proposed annual estimate letter to Mr. Clark. I shall be glad to have you go over this letter and let me know whether you with any alterations made in it.

You will note that I have included a small account for additional laboratory equipment, and I think this is all that you will need. If later we wish to make additions to our equipment, we can cover it by requisition and charge it against our items of \$3,500 for miscellaneous works improvements.

Yours truly,

ROLLIN NORRIS, FOR
WALTON CLARK,
Second Vice President.

Mr. BYERS: Stamped on the bottom of the letter are the words "Received February 27, and the year is blurred, 191 is in sight.

And the annual estimate that I have already read into the record is attached to that letter.

Also what purports to be a copy of a letter found with the other papers in Exhibit 18 and as part of Exhibit 18 under date *date* of August 31st, annual estimate written across the left hand upper corner, 1911, being copy of a letter addressed to Mr. Rollin Norris for Mr. Walton Clark, Second Vice President Philadelphia, Pennsylvania, and purporting to be from the manager of the Des Moines Gas Company.

Also what purports to be a letter under date, at the right hand of the first page, copy of a letter September 1, at the left hand upper corner of the page on the same copy "August 1, 1910, annual estimate 1911" and addressed to Mr. Rollin Norris for Mr. Walton Clark, Second Vice President, Philadelphia, Pennsylvania, and purporting to be a copy of a letter containing annual estimate made by the manager of the Des Moines Gas Co.

Also copy of a letter under date September 15, 1910, also attached to and part of Exhibit 18 called annual estimate on the upper left hand corner, 1911, addressed to Mr. Rollin Norris for Walton Clark, Second Vice President, Philadelphia, Pennsylvania, and purporting to be copy of a letter written by the manager of the Des Moines Gas Company.

Also copy of a letter under date September 20, addressed to Mr. Rollin Norris, Philadelphia, Pennsylvania, and purporting to be signed by the manager of the Des Moines Gas Company with a stamp at the bottom upon which is printed the word "Noted Sep. 21, 1910, J. H." At the upper left hand corner typewritten are words and signs and figures, see file #76, see File #278, See File #365, under 9-20-10, 7-29-10, 7-26-10.

Letter under date August 1, 1910, "Annual estimates" in the upper left hand corner purporting to be addressed to Jansen Haines, Manager, Des Moines, Iowa, and written at Philadelphia, signed by Rollin Norris, stamped at the bottom, "Received Aug. 3, 1910, the

letter indicating that it is a mimeograph production the name Mr. Jansen Haines, manager Des Moines, Iowa, being typewritten in and the letter reads as follows:

DEAR SIR: The time is approaching for the preparation for the annual estimates for 1911, and I shall be obliged if you will get in your annual estimate letter by the 1st of September or earlier.

In order to simplify the getting up of this letter by you, I enclose herewith a blank copy of the same form we used last year for this purpose.

On this form please give the present capacity of your manufacturing plant, as indicated. It also provides a place for you to fill in your estimate of the maximum daily output which will have to be provided for this coming winter and for the winter of 1911-12.

Please fill in on the first page a brief memorandum of what improvements or large repairs you anticipate for 1911, and in the letter which you will send here with the filled in blank, give such further detail as may be necessary.

In the case of the trunk mains, as covered on page 2, of the blank, you will of course be unable to give accurate detailed figures, but please do the best you can and especially call attention to any districts where you expect low pressure area to develop and give a lump sum estimate of how much money you expect to need for pressure mains.

Actual determination of the trunk mains needed for 1911 will have to wait until pressures have been taken during the heavy consumption next autumn.

Please estimate the capacity of your purifiers by taking the number of cubic feet of oxide in the boxes between where the foul gas enters and the point where the gas is tested, and multiplying this by 600 ft. per day. This gives the normal daily capacity of the boxes. For instance, if you have a regular 4-box system, with 3 boxes in use, you test in the outlet of the second box, and the capacity of the boxes would be the number of cubic feet of oxide in the first two boxes multiplied by 6- cu. ft. of gas per day. For mixed gas use a factor of 500 ft. instead of 600 ft., and for coal gas use 400. ft.

You have a copy of the annual estimate letter for 1910 as it went forward to Mr. Clark, and your letter for 1911 should follow the general plan and give detailed explanations of your recommendations.

Yours truly,

ROLLIN NORRIS.

Mr. BYERS: Attached thereto is the following and a part of Exhibit 18.

4214

Annual Estimate for 1911.

Des Moines, Ia. Works.

Maximum Daily Output:

Actual—Winter of 1909-10—2013 M

Est'd " " 1910-11—2214 M—10% increase

Est'd " " 1911-12—2435 M—10% "

Daily Capacity of Present Plant:

| Generators. | | Station | | Oil storage. | | Holders. | |
|-------------|--------|------------|---------|--------------|-----|----------|----------|
| Reserve. | Net. | Purifiers. | meters. | | | Relief. | Storage. |
| 1800 M | 1200 M | 3360 | 5000 M | 64 M | g. | 160 M | 300 M |
| | 1200 M | .... | .... | 300 M | g. | ... | 1100 M |
| | 300 M | .... | .... | 300 M | g. | ... | .... |
| | 300 M | .... | .... | ... | g. | ... | .... |
| | 3000 M | .... | .... | ... | ... | ... | 1400 M |

65 days

Purifiers:

| | |
|------------------------------------|-------------|
| Number of Boxes..... | 4 |
| Inside dimension of boxes..... | 20 x 20 x 8 |
| Depth of Oxide in each box..... | 6 |
| Maximum rate per hour, actual..... | 125 M |

List of new apparatus, etc., needed to take care of the above est'd.

Output:

| | |
|---------------------------------|-----------|
| 1. ——— | |
| 2. Real Estate | 35,000.00 |
| 3. Holder Foundation | 40,000.00 |
| 4. Alteration to Purifiers..... | 2,000.00 |
| 5. Works Office station..... | 3,000.00 |
| 6. Misc. Works Impt. | 3,500.00 |

Mr. BYERS: The Miscellaneous Works Improvement is later written in blue pencil 5000.00.

4215

Annual Estimate, 1911.

| | |
|---|------------|
| How many tons of general or fuel can you store?..... | 1520 Tons. |
| How many days will this last in winter of 1911-12.... | 30 Days. |
| Do you recommend additional storage?..... | No. |
| How many tons of Boiler fuel can you store..... | 300 Tons. |
| How many days will this last in winter of 1911-12.... | 12 Days. |
| Do you recommend additional storage..... | No. |
| Have your exhausters sufficient capacity to take care of your make, even if the largest one should break down? Yes. | |

Distribution:

Trunk Mains: What pressure mains will you probably need?
Give list and approximate cost?

| | | |
|------------------------|-----------|----------|
| E Court 15th 18 | 1200' 16" | 3,200.00 |
| E 18th Court to Walnut | 1300' 12" | 2,500.00 |
| E 18th Lyon to Walker | 700' 12" | 1,300.00 |
| Misc. Pressure mains | | 5,000.00 |
| G — | | |

Give estimated cost for 1911 of

| | |
|--|-------------|
| Small Mains (in addition to trunk mains given above) | \$40,000.00 |
| Meters & Services | \$15,000.00 |
| — — — | , Sup't. |

4216 Mr. BYERS: The matter just read is written into a blank and purports to be the blank referred to in the letter of Mr. Rollin Norris under date August 1, 1910. Attached to this last paper are three pages of lead pencil memorandum purporting to have been made by Mr. G. I. Vincent. The letter under date of April 8, 1911, reads as follows:

Mr. Rolling Norris, for Walton Clark, 2nd V. P., Philadelphia, Pa.

DEAR SIR: In your Annual Estimate letter of December 15, 1910 I note that you ask for an appropriation to cover foundations for a new holder. I have sent in L. & R. Req. No. 187, under date of March 22, 1911, for \$30,000 to cover this item.

I have been studying over this situation to see if we could not eliminate the erection of this holder for another year, but I am afraid to take this chance unless our sendout should be more disappointing than I now anticipate.

For the first three months our sendout shows an increase of about 8% and if this same percentage were carried on to our maximum week it would give an average daily sendout of 2,160 M.

While our available storage is only 1,400 M of this available storage there is only 700 M available for the peak-load. This is because the upper lift of the #4 holder and the entire #3 holder are too light to give sufficient pressure, although I realize that they act as a safeguard against the gas going out on the town within their capacity of 700 M.

I am satisfied that this holder foundation should be commenced not later than September first unless we find that the conditions as to sendout have radically changed. The plans for this

4217 foundation will have to be prepared in ample time and this brings me down to the question of the location.

I have prepared and enclose a blue print of the property in Block "A," the purchase of which I recommended in my annual estimate letter. In this print I show in the upper sketch the available ground provided we were to make an arrangement with the C. B. & Q. railway to square up the property by giving and taking an equal number of square feet so that the east and west lines on the north of the property would then be parallel to the east and west lines of the south line of the property. I find, however, that if this ar-

rangement were made, which it would have the advantage of squaring the property up, it would limit the diameter of each of the two holders which could be built in it, to 150'.

In the lower part of the print I show a diagram of block "A" in which the subdivisions of the block, or lots, are shown by dotted lines. Lots. No- 1, 2, 3, 4, 5, 7, 8, 9, 10 and 12 and the N $\frac{1}{2}$ of Lot. No. 11 are immediately available for purchase and the S $\frac{1}{2}$ of lot No. 11 can be purchased if desired for about \$5,000 of \$6,000, but I have not seen the owners recently as I do not wish to stir them up.

With the property available as above a new holder could be erected as shown by the solid circle within a diameter of 151' and an additional holder could be erected as shown by the broken line circle on the same size at some future time. It would not be necessary, therefore, to purchase the S $\frac{1}{2}$ of Lots No. 11 immediately. I would recommend, however, that an appropriation be made available for the purchase of the S $\frac{1}{2}$ of Lot No. 11 and that it be left open in event of the owners making a proposition to sell at some future time that would be attractive to us.

4218 The C. B. & Q. Railway have advised me that they would not object to condemning the alley on which they own the frontage of Lot No. 13.

I would recommend the purchase of lots Nos. 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 and 12 for the erection of this new holder and that the foundations and holder be erected of a capacity of two and one half million feet. This block with the exception of lots Nos. 6 and 13 can be bought for \$35,000 but I do not wish to approach the owners of the S $\frac{1}{2}$ of Lot. No. 11 with a view to purchasing unless it is decided to purchase the block, as I think that they will probably raise their price and if some of the old buildings that are on this block were torn down before they were approached, I believe that they would be more willing to sell.

In reviewing the general real estate situation at the plant the real estate now owned will not all be available because all the lots in Block "T" will have to be abandoned or sold for park purposes and we will have to provide storage room for which the lots in Block "K" are most valuable by reason of their trackage facilities.

In my judgment the N E quarter of Block "B" is much too valuable property under the circumstances on which to build a holder on account of its proximity to the rest of the plant where it should be available for other internal improvements to take care of the growth of the business. In addition to this the railroad tracks on the north line of Block "B" run very close to the fence and while it would be possible to construct the proper foundations for a holder and a masonry retaining wall, it would require pretty expensive construction to hold up this railroad track while we were doing the work on account of the holder occupying all of this quarter block.

4219 I wish you would give this matter careful consideration because in planning the foundations for the holder the additional 11' in

diameter available on Block "A" should, I believe, by all means, be taken advantage of.

Awaiting your reply, I am,

Yours very truly,

— — —,
Manager.

4220

Edward W. Bemis, Continued.

Redirect examination by Hon. H. W. BYERS:

Q. Now Prof. Bemis, beginning where you left off in your cross examination, I wondered if you appreciated the insinuations and reference- that *was* covered by counsel's last question or two to you about your contract and your testimony here where the suggestion or insinuation is thrown out that your testimony is bought and paid for?

A. Yes, I appreciated that, but I think my previous testimony in all other cases is along the same line as this and my general writings for the last twenty years ought to be a refutation of the fact that my testimony in this case was paid for in the sense that it was influenced by compensation.

Q. That was not only a gross insult to you, but a gross and unnecessary reflection upon the city and counsel for the city and I want the record to show that it is resented by counsel for the city as a gross and unnecessary insult and reflection, and because it was brought in here in the way in which it was I want you to state to the Master just the manner in which you approached this case with reference to the condition of your mind, whether you approached it upon the theory that you were to find matters that could be criticised in the case made by the complainants or whether you approached it with a- open mind and for the purpose only of getting at the truth and helping everybody here as far as you could?

A. I approached the case in the latter spirit. I was not asked to frame conclusions in any way, but to investigate all the testimony and evidence, present my interpretation of it, and my reasons for my views.

— Did you ever have the slightest idea or understanding that you were to take any part in the business of conducting the law suit as counsel?

4221 A. No, not the slightest. That I want to repudiate absolutely, if I may have the freedom to say so. I want to say that the counsel in this case has conducted it in his own way, or their way, the two for the city.

Q. And is it not true that counsel have time and time again in view of the fact that much of this testimony involved tabulations and tables and figures, is it not true that counsel have time and time again urged that every possible care be taken in getting these things right?

A. Yes.

Q. Whether they helped or hurt the city?

A. Exactly.

Q. You were asked just before the close of your cross examination and while counsel was dealing with the case in hands, whether you proceeded to ascertain the value of this plant on the so-called reproduction theory. Now what theory, if any, other than just a desire to get at the value of the property used in the business of making gas in Des Moines, did you pursue?

A. Of course that was my object in approaching the case or method I sought for, it was to make a special study of all the help I could get from the books and the evidence in the case, the books as reported principally by Mr. Hall and the evidence in the case.

Q. And if the figures that you finally arrived at and conclusion as to the value of the property as you finally made it up in your judgment happened to be what you now say was about the reproduction value, it was not because you adopted any reproduction theory?

A. No, I distinctly object to that theory and I think so state in my report. The theory that I followed was the theory of investment cost less depreciation.

Q. At that point I want to ask you now after this long cross examination and your quite full examination in chief, what if any change has come about in your judgment as to the value of this property, this Des Moines Gas Company's property used in the manufacture and sale of gas in Des Moines?

A. None.

Q. I want to ask you this general question at this point, based upon the record as you have so far reviewed it and upon such general information as you have about the business and then in addition to that I want you to assume that the Des Moines Gas Company had net earnings of in round numbers \$188,000 average net earnings of \$188,000 for the years 1908, 1909 and 1910, what do you have to say now with these figures in your mind in addition to the general information you have and the investigation you have made here as to what gas can be manufactured and sold in Des Moines for during the year 1911?

A. Does this \$188,000 net mean before or after deducting an allowance for depreciation?

Q. The average net earnings referred to in round numbers, \$188,000 being without any charge for depreciation. I just want your judgment now what gas could be manufactured and sold for in Des Moines during 1911, basing your judgment on the facts as stated.

A. It could be sold a little below ninety cents.

Q. Now I wish, Prof. Bemis, you would take the record as you find it of the Des Moines Gas Company for 1910, in connection with the estimate made by Mr. Haines and by Mr. Norris for the business of 1911, the increase, etc., taking the company's records just as they are shown here by both Mr. Hall and Mr. Hagenah as to gross receipts and the operating expenses with the two items of salary, \$10,000 salary and \$5,000 odd dollars litigation expense out and considering Mr. Haines estimate as to the increase

in output and what would that show that gas could be manufactured for and sold in Des Moines during the year 1911 if you had no other figures at all to aid you except those and your general experience and knowledge of these matters?

A. I should first have to make a computation to answer the question.

Q. All right.

A. I should first turn to page 5 of Mr. Hall's report to find what the actual expenses were of 1910. There it is given as 65.19 per thousand feet of gas sold with no allowance for depreciation or rate litigation and with the \$10,000 in there which you said to take out.

Q. Yes, I want that out and I don't want you in this computation to pay any attention to depreciation, I want it just as they were running it.

A. I should then take the 65.19 cents and multiply it into the—excuse me, if you want 1910 or 1911?

Q. 1911. If you had just been furnished with Mr. Haines' estimate for 1911 and with Mr. Hall's and Mr. Hagenah's statements as to the books for 1910, the receipts and the expenditures, what would you say with these figures before you, gas could be manufactured and sold for in Des Moines, during 1911.

A. I should take next the sales of 1910 531,991,000 feet and to add 10 per cent if I am following Mr. Haines' estimate of increase, it would be to add 53,199,000 feet which would make sales of 585,190,000 feet. Then I should multiply that into the cost given by Mr. Hall on page 5 of 65.19 cents and take out the \$10,000 afterwards as it is more convenient. The result of multiplying 585,190,000 feet into 65.19 cents is \$381,485.36. Subtracting the \$10,000 as stated from that leaves \$371,485.36. Now shall I assume that all gas is sold at 90 cents or only gas in the city of Des Moines?

Q. Yes, the city of Des Moines is what I am talking about. Separate Valley Junction as far as you can?

A. Valley Junction in 1910, as far as Exhibit "C" of Mr. Hall's report sold \$6,889,100 feet for \$10,370.

Q. I don't care about the amount of money, take out enough or more than enough?

A. If I take out sales for Valley Junction I have got to take out capital, devoted to Valley Junction and it is easier to keep them both in than to attempt to take out capital when I haven't got enough data on the subject.

Q. I only want an estimate anyway as near as you can get at it.

A. I think it is better to leave the Valley Junction in.

Q. All right, either way, work the details out later if you want to.

A. The receipts from Valley Junction being increased 10 per cent would be \$11,416.92. The sales in Des Moines, less the sales in Valley Junction 7,578,000 feet would be 577,612,000 feet and this at 90 cents would be \$519,850.80. Adding Valley Junction

receipts of \$11,416.92, would give the total receipts of \$531,267.72. The expenses with the \$10,000 out would be \$371,485.36, the net receipts without allowance for depreciation and as their books have given it or \$159,782.36. That is 9.74 per cent on the \$1,4225 600,000 which I take as the investment of 1910, plus \$40,000 as average increase of investment of 1911. That result would prove an ample amount to take care of any depreciation and leave a good return at 90 cents.

Q. Now putting the question in another way if you had nothing before you but the fact that the Des Moines Gas plant was in excellent condition on the 1st day of January, 1911, in an 85 or 90 per cent condition on the 1st day of January 1911, and with the estimate of the increase made by Mr. Haines in Exhibit 18 to the output of gas for 1911, what do you have to say as to whether the return to the company would be larger than what you have heretofore stated it would be on the figures that you had and which were not based on Mr. Haines' estimate.

A. Yes, I would assume that not as much was necessary as 4 cents or 1.289 per cent for depreciation, that they were taking care of it in repair account. These figures show about 8½ per cent profit over and above even my allowance for depreciation for 1911 on my valuation.

Q. On a valuation of \$1,600,000?

A. Yes.

Q. Now once again, I don't care very much about comparisons and about percentages, I would like to know once again leaving out every question of method and theory just what you would feel safe in saying your judgment is the reasonable value of all of the property of the Des Moines Gas Company used in the business of making gas in this city.

A. \$1,600,000.

Q. Now about half of the forenoon was spent with you in a discussion of certain figures from Massachusetts, among other figures on depreciation and the discussion or argument seemed to 4226 be as to whether or not the figures and the reports of the Massachusetts commission showed any constant or regular method of depreciating the property of the gas companies covered by the comparison. Now the commission in Massachusetts does not regulate the depreciation does it?

A. No.

Q. Whatever depreciation appears in any of these computations or figures is what the company itself for a particular year has reported as being charged off or charged up to depreciation?

A. That is right.

Q. Now is there any question about that?

A. Oh no, that is absolutely so.

Q. So if there is any constant or regular method or rule for charging up depreciation in Massachusetts it is because the different companies proceed upon different methods or different theories.

A. Yes. The only time the commission takes account of depreci-

ation is when a rate case is before it. When the company is also seeking to issue new securities, the commission may investigate to see whether the assets are of less value than the outstanding securities, but they are usually of more value because for many years their securities have been sold at auction or a price fixed on them much above par.

Q. On page 92 of your report is a table which, if I understand it purports to give the gross sales of seven Massachusetts companies for five years.

A. Yes.

Q. And the gross cost of producing the gas that made up that gross sale?

4227 A. Yes.

Q. With an item of \$521,089.56 added to the cost of the manufacture and distribution of that gross sale.

A. Yes.

Q. And the purpose of it was to show the average price per thousand feet received by these seven companies for the gross sales referred to.

A. No, it was not to show the average price, but to show the difference between the average price and the expense.

Q. Of course you reach the average price too in order to do that?

A. Yes.

Q. Your purpose was to show the difference between the average price and the average cost.

A. Yes.

Q. Simply for the purpose of showing the margin that these seven Massachusetts companies have for what might be termed profits if these figures are dependable.

A. Yes.

Q. Is there anything else that can be gotten out of that?

A. Oh no. It was just intended to show the Massachusetts experience that was all. Having worked out precious tables I introduced these illustrations for Massachusetts.

Q. If it should turn out that the wrong figures were used or if your subtractions, additions or divisions do not happen to be right to a cent here, what effect if any does that have upon your general conclusions as to the value of the Des Moines Gas Co., property or the cost of making gas in Des Moines and distributing it?

A. It does not affect that. All these calculations which come before this are based on the data of Des Moines and these tables I have been over and believe them to be absolutely cor-

4228 rect.

Q. On page 91 there is another table and as I understand it covers the same Massachusetts companies?

A. Yes.

Q. And the purpose of that table was to ascertain the net profits per thousand feet received by these seven gas companies in Massa-

chusetts upon their business or in their business of manufacturing gas?

A. Yes.

Q. The figures as you used them and the computation you make shows for 1900 33.7 cents in profit per thousand feet, 1905, 27.3, 1910 26.3. Now what purpose other than simply to show the net profits by this method if the figures taken from the Massachusetts reports were correct or if you got them down correct or added or subtracted them correctly, what purpose other than to show just that fact did you have in mind in setting out this table?

A. That and the further fact that the margin is declining with increase of sales.

Q. Now Mr. Guernsey asked you in that connection about New York and about Brooklyn and as to whether or not conditions were the same there and whether the population was not more dense and all that sort of thing. What difference does that make with the general efficiency and general practice of the gas business whether population is dense or otherwise?

A. It will affect to some extent per capita. It won't affect the tendency to lower price and increase consumption, to some extent it may affect the amount of that increase but it will not destroy that tendency, the general tendency is always every time there is a reduction of price to increase consumption. It comes about 4229 through trenching on the use of coal more than *than* anything else for domestic consumption in heating.

Q. So whatever may be said about the accuracy of these additions or multiplications or subtractions, the proposition that you claim for this of a general downward tendency remains just the same.

A. Yes, there is not enough inaccuracy if any on page 91, and I doubt if any, to show any different tendency than is there shown.

Q. On page 86 and page 87 the burden of counsel's complaint seemed to be that you have not covered in these figures investment. Now what difference does it make whether you had dealt with these figures in this table with the details which would of course cover investment and that dealing with it as you did, so far as the purpose you had in view in setting out the table, what difference would it make?

A. I don't see that it would have affected the use I made of the data on pages 86, 87 or 88. I was showing the tendency of increased sales per capita and how that came about with reduction in price and development of civilization generally, and I specially on page 87 was bringing out the fact that sales per mile of main might increase as there shown with great rapidity, *sam-* 50 per cent in ten years while there was very little increase in sales per meter.

Q. Right in that connection you tried once or twice to get in a word in an answer about meters and that the meter method of determining investment and returns was not sound. I wish you would get it in now while you have an opportunity.

A. The investment in meters is very small compared to the investment in mains and the way that consumption grows is often by

4230 the addition of meters where at the start a small amount is used per meter on the new meters, the old meters will be using more and more, but the average per meter, may remain about the same. After, however, most of the city is metered, then the increasing consumption of gas will begin to show itself to some extent in the increase per meter, but there are meters put in office buildings and sometimes in subdivisions of other buildings without the increased use of gas, perhaps for light heat in fall and spring and for light cooking without much additional investment except for that particular meter using some big main for the supply.

Q. If I have profited any by this brief sojourn we have had here with the gas business, I have learned, I think I have, that the increase in the number of meters would be no indication whatever as to the increase to mains and services.

A. That is true so far as the mains and not a very complete indication as the city grows larger of services, because after a city reaches a point where apartment houses come in or large office buildings there will be several meters on the same service, the number of meters relative to the number of services will also increase.

Q. Right in this same connection you were asked to tell which had the greater specific gravity, coal gas or water gas. What difference did that make with any of these computations or with the price of gas or the value of this property whether coal gas was heavier or lighter.

A. When we are confining our studies to what the books show as to Des Moines where they have been using water gas right along, and where conditions are not to be changed the coming year or two it makes no difference. If there be any force whatever in 4231 the claim it would only be in some comparison with Massachusetts or other companies, but in that comparison the difference in cost is too slight is any to be worthy — consideration. On that point these Massachusetts companies all using more or less water gas, generally from one third to one half water gas as a mixture with the coal gas.

Q. To go back again to these tables because while I don't care very much about comparison, more particular about vital questions that are involved here, where you are trying to make comparisons and to work out averages and are working out the average price of gas per thousand feet, the company's investment cuts no figure does it?

A. Not on the operating expenses.

Q. On anything?

A. The investment counts when you come to consider how much profit.

Q. But for the purpose of simply ascertaining—suppose you took twenty companies and you want to find out—say you take twenty towns like Des Moines, twenty other towns, Des Moines made the 21st and you should take the figures of those twenty towns, not the value of their property at all, but the total sales of the companies, those twenty companies, their total expenses, total receipts and so on, and figure out from that the average price not cost, but the average amount they received for each thousand feet of sales, and those

twenty companies, no matter what their investment might be, those twenty companies showed that they were manufacturing gas in those twenty towns situated similarly to Des Moines and selling it at or receiving an average price of 85 cents per thousand cubic feet, that would be a very important factor in determining the ultimate question in this case wouldn't it without reference to their investment.

4232 A. It would have a bearing on it. We would have to study, however some if we were only to take that figure alone, we would have to go a step further to see the conditions that were different in these places.

Q. What difference does it make whether one of these companies has more property than the other or not? The question is, what can gas be manufactured and sold for per thousand feet. Now what difference does it make whether the value of the Des Moines property is much or little in determining what the reasonable price would be for gas per thousand feet if you are taking it by comparison if the twenty other companies make it at 25 cents, what difference would it make?

A. I would not quite accept that, but I would say that operating expenses could be compared very largely especially distribution and general, manufacturing expense might vary with the cost of fuel, coal oil or coke and with candle power, but the distribution and general expense could be compared and the marginal profit could be compared to a considerable extent with a large number of companies unless it could be shown that there were marked differences on the book investment in one place than another, that would have to be considered.

Q. What difference does it make about—

Mr. GUERNSEY: Is this cross-examination or redirect examination. I have been wondering.

Q. What difference does it make about the value of property now if you are just simply trying to settle the question of what a thousand feet of gas can be sold for if you are going to settle it by comparison of sales?

A. If you had started out with only data you can get by comparisons of course you would have to continue with that, but
4233 where you can possibly introduce local studies, those are very important.

Q. What you mean is in determining these other questions the return on property of that concern or any difference in investment goes out some figure.

A. Yes.

Mr. GUERNSEY: I would like to have the objection run to all this examination as not redirect examination, leading and cross-examination of his own witness.

Q. Suppose these 20 companies manufacturing gas which you used for comparison, the average value of the property of the twenty was say a million and a half dollars and the property of the Des Moines Company was three or four times that, would that make any differ-

ence in what would be a reasonable price ascertained by comparison for the manufacture of gas or would that not only show that the Des Moines Company if we went into value at all had a good deal more property than it needed.

Same objection.

A. Such a case as that we would have to look over the evidence to see whether the investment in Des Moines under such condition was needed or not, whether it was necessary or not, but is it is necessary as compared with these other cities to have twice this investment here you would have to allow more return on capital.

Q. This question assumes the same conditions in these twenty one towns, there is no more necessity for more property in any one of them than there is in any one of the others so far as that is concerned is the same and you are simply ascertaining now this one fact on which to determine it.

Same objection.

A. With comparisons and in that light I should say then
4234 of course the question must be one of comparison.

Q. Investment would make no difference?

Same objection.

A. No.

Q. And wasn't that all you were trying to do by these tables is simply to show, the tables on pages 89 and these several pages here where you set out the price per thousand feet of gas simply showing in so far as the figures were correct, a comparison as to price in a given number.

Same objection.

A. I was not going quite so far. I was not attempting to institute any comparisons between the manufacturing cost of gas in the holder under Massachusetts companies as compared with this, although it entered into the final tabulation used to get it proportioned to the other, but what I was endeavoring to show was not manufacturing costs which would be complicated by question- of candle power, cost of coal, oil and so on but to show the other costs, the margin between holder gas and the price charged which is not affected to anything like the same degree by local conditions as is holder gas.

Q. Of course with those Massachusetts companies you don't have the same assumption that you have in my former question that conditions were all alike.

A. No.

Q. Conditions were different?

Same objection.

A. Yes, especially in these matters of manufacturing cost.

Q. You didn't attempt to go into details for the purpose of showing that the cost of any particular part of this production of gas was the same here as it was in Massachusetts, but you were simply
4235 trying to ascertain in a general way averages as applied to the Massachusetts companies?

Same objection.

A. I was attempting to show primarily that in order to get rid of all complications of how much should be assets, how much should be the rate of return on capital, that would take something, the return on investment, to show that the seven Massachusetts companies are content with a return on an investment, they don't pay it all by dividends, but they don't get as a matter of fact much over six cents per thousand feet the last year or two as return then, the net of the return on capital.

Q. In that connection and for the purpose of bringing my comparison down suppose we had here ten miles away another city just like Des Moines, soil and conditions just the same, rivers just the same, railroad crossings just the same and gas was being manufactured and sold in that town ten miles away with every condition the same as it is in Des Moines at say 85 cents a thousand feet and that was 26 cents, as one of your figures here is in round numbers, more than the cost there, now if you had nothing else than that before you and the question was as to what it could be manufactured and sold for in Des Moines, how would you use that fact.

Same objection.

A. I should try to get local conditions and after getting these and having developed whatever conditions there showed it would have an important bearing as forming the result of local studies.

Q. If the companies are just equal there don't you have that?

Same objection.

A. Yes.

Q. You are not a gas expert or anything and it is conceded 4236 that in this other town which is just like Des Moines only ten miles away, everything the same, same labor, same material, same freight and there they are making gas and selling it — consumers at 85 cents and have a margin of 26 cents, how would you use that in trying to arrive at what would be a fair price in Des Moines?

Same objection.

A. It would have quite a bearing in leading me to believe that either an 85 cent rate or a rate not far from that was practicable here. There is in my comparison here another point which I have not very fully brought out here, although I refer to it which to me is very important as well as the margin between cost and price in Massachusetts, the margin between holder cost and total cost. The margin there which is sometimes called distribution and general is smaller in Massachusetts than it is here. So that as I say here somewhere the total cost margin is a little over 50 cents there.

Q. So wherever these Massachusetts comparisons are set out is it simply as an aid to the judgment of the Master just as it would be an aid to you in fixing your judgment upon what would be the reasonable price here?

Same objection.

A. That was all.

Q. And upon which a reasonable return could be earned.

Same objection.

A. That is all. This being a secondary part of the report although it happens to have taken much more time in the discussion than the other.

Q. You a moment ago mentioned something about candle power. Is there any appreciable difference between the cost of gas
4237 where twenty two candle power is used and eighteen?

A. Of course that depends largely on the cost of oil. There is about four to five candles difference with a gallon of oil and the difference was here between eighteen and twenty three candles would be about a gallon of oil or 2.8 cents, call it three cents. The labor cost is practically the same, to put in a little more or little less. The other costs are slight there is little other costs, but not much. Practically therefore three fourths of a cent a candle power will cover—the price of oil estimating it as here three fourths of a cent or thereabouts will cover the difference in candle power, three fourths of a cent per candle power.

Q. Going to page 83 of your report you make some reference there and were cross examined with respect to the cities you mention there, Milwaukee, Grand Rapids, Detroit, Indianapolis, Boston, Brooklyn, New York and other cities and counsel asked you to name any other city than New York, Buffalo I think he said first, Brooklyn and New York, where you had access to any facts or figures with respect to the tendency and with respect to the cost of making and distributing gas. Do you think of any other cities besides New York and Brooklyn now?

Same objection.

A. I was given access to the same line of work in the Syracuse gas case which by the way I think I have not mentioned as a case I was in.

Q. How about Chicago.

A. And Chicago, and in the records of the Massachusetts commission, in the records of the English Company, in the Cleveland experience from the first gas company in 1840 down to the present,
I followed all that. Many other cities, I followed Wheeling
4238 West Virginia, went at one time to Richmond, Virginia, and very many of those cities.

Q. Can you now think of a town anywhere, I am asking about this general tendency shown by some of these tables, can you now think of a single town anywhere in the United States where they manufacture and sell gas where your information has come either by being a witness in the case or by examining its reports or the statistics from different sources you have been able to get them, where this general downward tendency has not appeared.

Same objection.

A. No, in a period of an average of three or four years it is invariable. You will find little up- and downs. Take a five year aver-

age you will find it was practically universal for a decline in the total operating expenses with an increase of sales and that increase of sales is partly the product of the general growth of demand in the community, partly to the question of price, partly to the special efforts of the company through canvassing, soliciting and developing.

Q. Do you know of any gas experts or gas engineers either in this proceeding or in any other proceeding that you have been connected with who have not recognized that fact and so covered the case if they were engaged in it in their report showing that very tendency.

Objected to not only for the reasons already urged but also as secondary and incompetent on that account.

A. I know none in their discussion of the subject as reported in the proceedings of gas associations and they are usually reported almost verbatim and in papers before societies where that position is not taken. There are times in testifying where a witness 4239 will hesitate about saying that, I think I heard here some witness hesitate about saying that a reduction in price would increase the demand for gas, but the position is generally taken or practically universally by engineers when discussing the subject informally that there is such a tendency. Even without a reduction of price I believe a 40 per cent increase of sales has been estimated by Mr. Lea and Mr. Baehr in the next three years here or next seven years.

Q. How does this general downward tendency of the cost of manufacturing and selling gas come about.

Same objection.

A. Partly through the canvassing of the companies, partly through a general education of the community from coming in contact with the use of gas in one way they want to use it some other way, the realization that the improvement in mantles for lighting, the improvement of stoves, improvement of furnaces, of light character, for light fall and spring use, hot water heaters, instantaneous heaters for baths and kitchens, with all these developments constantly being made there is a large development of interest in the use of gas. Reductions in price stimulate that.

Q. A striking illustration of that not referring to gas but referring to light would be in the electric light would it not?

Same objection.

A. The same thing is true in electric light as gas.

Q. There has been a tremendous downward tendency in the cost of that kind of lighting?

A. Yes.

Q. Would one be safe, would the Master in this case be 4240 safe in relying absolutely on what it cost last year to make gas and distribute it in Des Moines for the exact figure that it will cost to manufacture and distribute it in Des Moines for 1911?

Same objection.

A. No the tendencies will be downward.

Q. This very estimate here, you heard it read into the record; what do you have to say as to that being an illustration of what may be done.

Same objection.

A. That is a remarkable illustration. Just take those figures for a minute, not over \$40,000 will be on the average in the investment during this year. Probably not half of that, but assume there are pipes being put in, mains during the warm weather. There may be at the close of the year most of the investment, it does not look as if all of it would be in by December 31—\$40,000 probably the way things are going is as much as will be the average investment for the year in the plant and only \$50,000 is an average investment. Eight per cent of that is only \$4,000 to cover depreciation and the return at 8 per cent for that purpose. Let us assume an increase of consumption such as the first seven months indicated 6.16 per cent of sales over the corresponding period of last year. That would be about 32,000,000 feet if I remember some previous computations I made, 32 million feet of increase with only practically \$4,000 increased return necessary. \$4,000 means per thousand feet of increased sales only 13 cents per thousand feet.

Q. On the increased sales?

A. Yes, of this year. Take where the rate of return was 4241 9 per cent to cover interest and depreciation, if you please, on the \$ \$50,000, \$4,500, that would be only 14 cents of return necessary.

Q. That is to say that the making and distributing of that additional amount 30 million feet only cost the company about 13 cents?

A. Plus the operating expenses. The operating expenses would not be any higher and probably have a tendency to be slightly lower than the present, but call it the same.

Q. Now that is one thing, but I had in my mind a different thing in that question. I notice that Mr. Norris has approved if I read that record right the purchase of a machine that is only to cost \$11,000 to be hooked up with this plant down here, he says it will save \$6,000 a year to have it. There is a striking illustration is it not as to how this general downward tendency has come about.

A. Certainly. That could be illustrated in this way. Suppose that there was a recommendation there of \$140,000. Suppose \$50,000 on the average was invested this year. Suppose next year an amount equal to \$150,000 goes in. That would be an investment the half year \$75,000 and suppose at the end of this year there had been put in \$100,000 out of the 140 recommended the rest going in early next year making part of the \$150,000. Then we would have investment for all of next year the \$100,000 or average investment of \$175,000 which I think would be very large. Now let us assume a nine per cent return covering interest, depreciation and everything which I think is proper or may be too high, I don't know how I am going to come out, but I am going to take these figures. Nine

per cent of \$175,000 would be \$15,750. The increase in 1912 in the return necessary on capital about \$6,000 and reduce operating 4242 expenses to come out of this makes \$9,750 net increase of expense necessary aside from the current operating cost of producing the extra gas. Now the sales this year are about 6.16 greater than the corresponding period last year or about 32 million increase and let's assume another 32 million or 64 million more feet of gas sold next year than in 1910. Then we have this situation. We have \$9,750 of return on capital after deducting savings to spread over 64 million feet of gas, which is per thousand feet only 15¼ cents which added to say 65 cents operating cost would mean 80 cents. In other words, while the gas now being produced might require a return of 85 to 90 cents or price of 85 to 90 cents to give a nine per cent return to cover depreciation and return an 80 cent price on the increased amount would do the same thing. Of course you can't separate those two items in just that way, but that estimate brings out the fact that with increased sales there is not likely to be as great a total price necessary to cover everything as with the present sales.

Q. That is to say if I understand this statement, if the future should work out as Mr. Haines has estimated it and as Mr. Norris suggests with respect to this machine that the Des Moines Gas Company with the increased sales could sell its gas for 1911 and 1912 at 80 cents and get substantially the same return that it would make at 90 cents under last year's sales and last year's operations.

Same objection.

A. It would sell the extra amount of gas at 80 cents but take it as a whole it would take 90 or 88 somewhere in there on the present, that is my point.

Q. And that is the way this general downward tendency 4243 works out, it is due to increased sales improvements in machinery economies in labor and material and all that sort of thing and use of material.

Same objection.

A. And the further fact which Mr. Baehr I think testified to, it may have been Mr. Lea that with an increase of 40 per cent of sales would only be an increase of 20 per cent in mains. In other words the increased consumption per mile of main which this company has had also will continue to develop. I do not show in my report, but I have written it on the margin comparing it here, sales per mile of main in Des Moines which were 1,961,700 feet in 1900 following I think some exhibit of Mr. Hagenah's increased to 2,792,800 feet per mile of main in 1910 an increase of about 50 per cent and the same has occurred in Massachusetts which was about 50 per cent per mile of main. The increase per meter had not been as great except there has been an increase in Des Moines per meter from 22,090 in 1900 to 26,955 feet in 1910.

Q. All of this is in a way covered by page 83. Now let me ask you this question, what is the fact as to whether or not in substance all of these cases with which you are acquainted and with which you

have the information, New York Brooklyn and Chicago and these other cities that you have mentions about this downward tendency covering a period of years.

Same objection.

A. Oh that is true absolutely.

Q. Now then have you followed out your investigation of this company far enough so that you are read- to say whether the same tendency appears here?

Same objection.

4244 A. Yes, it does appear here.

Q. How is that demonstrated here?

A. There has always been a complication here from the fact that it is difficult to entirely divorce the increased sales or separate it into the two elements or three that have been mentioned here one being the rather unusual amount of canvassing that the company has done I should judge from the reading here and the other the natural tendency to increase which Mr. Humphries spoke of and which others speak of and which occurs in cities where they do not do much canvassing, but where, nevertheless the sales are all the time either increasing per capita or in the total.

Q. In this case as it appears, carrying that just a little further, beginning say in 1906, what has been the general tendency as it appears from the records here that you have access to and books?

A. The increase has been very great in the consumption, it has not been as great per mile of main as in the previous five years because of very large extensions which seem to have been made about 1906 and 1907, but there has been a large increase in sales.

Q. The sales have been upward have they?

A. Yes.

Q. A general tendency upward?

A. Very rapidly.

Q. How about cost?

A. The cost has been steadily downward. The total cost as given for 1904, the total operating expense in 1904 was 70.84 cents per thousand feet. In 1905, 66.18, in the next four years 62.79 average.

In 1910 it jumped up to 65.19.

4245 Q. So that the general tendency that you have spoken of in New York, Brooklyn, Chicago and these other cities you have found to exist here only if anything a difference in degree?

A. Yes. Going back to the only other period I have which was a four — period 1891 to '94 brought out in a previous trial the total operating cost during that four — period were \$1.09 per thousand feet just for operation. With sales on the average of only about fifty million feet a year. So there was a reduction from \$1.09 in that four years to about 68 cents on the average in 1904 and '5 and a little under 63 cents in the next four years jumping up in 1910.

Q. Have you compared the values as found by Mr. Baehr or Mr. Lea as to the gas property with the book cost?

A. In some cases. I am not through with that. I am doing it now.

Q. Have you compared the cost or rather the price and valuation of the distribution system as found by any of these witnesses with the actual cost of putting in gas pipe since the 1st of January 1911?

A. Not as I know of so much since the first of January 1911, as buring the average of the five preceding years.

Q. I wish you would take the estimate of Mr. Haines during the adjournment and figure out for me—I notice in there is an estimate of cost of certain mains on certain streets in Des Moines and I wish you would take that during the adjournment and figure out for me the difference if any in that estimate and the valuation placed upon the same kind of pipe as that mentioned by any of these witnesses so that I can have it in the morning?

A. I think I would have to have a copy of Exhibit 18.

Mr. BYERS: At this time before adjournment I would like 4246 to have complainant produce for us so we can have it tomorrow the stockholders' and directors' minutes showing the expenditures up to this time for 1911 and also the authorizations that have been made for improvements and extensions during the year 1911.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

4247

Thursday Forenoon Session.

SEPTEMBER 28, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

Prof. EDWARD W. BEMIS, continuing his re-direct examination, examined by Hon. H. W. Byers, testified:

Q. Now, Professor, we were dealing with pages 83-4-5-6 and '7 when we adjourned yesterday afternoon. Before proceeding with that, I want to inquire whether the report that you referred to in your evidence, both in direct and cross examination, as to your qualifications is the volume called Municipal and Private Operation of Public Utlities, National Civic Federation Report 1907?

A. Yes.

Q. And you referred to the scope of the investigation both in this country and in Europe, and I will ask you if the scope is as set out here on page- 13-14-15-16-17-18 and 19, under sub-heads covers the scope and character of the investigation?

A. As I remember the scope was accurately stated in the opening pages. I have not read them over for several years, and I don't remember now what is stated.

Q. As stated here in brief the plan provided: (1) The particular public utilities to be investigated in this country and Europe, namely, gas, electric lighting and power, street railways, and water, whether privately or publicly owned, to be considered in their broad relations

to the municipality, the consumer, and the citizen generally. Is that about as you remember it?

A. Yes.

A. And it is further stated: (2) an investigation to proceed along the following definite lines: 1. Franchises of private companies; 2. Public supervision by Governmental authorities; 3. History of municipal ownership; 4. Effect of public and private management upon (a) political conditions, (b) conditions of labor, (c) character of service, (d) price of service, (e) cost of service, (f) economy of management, (g) improvement in service and methods, (h) financial results, etc., Does that cover it?

A. Yes, sir; that covers it; those are the points we agreed on.

Q. On page 16 of the volume the members—you gave part of them and part of them you did not remember—who participated in the foreign investigation are given here as Messrs. Ingalls, Goodnow, Walton Clark, Bemis, Maltbie, Parsons, Sullivan, Healy, McNulty, Winchester, Edgar, Commons, Gray, W. J. Clark and Moffett. Is that a correct list of the names?

A. That is right.

Q. And on page 17 of the report is set out the following names of plants investigated under the head "Gas" in Europe: Public: Glasgow, Manchester, Birmingham, Leicester; Private: London: South Metropolitan Gas Co.; Newcastle, Sheffield. Is that about the field that was covered there?

A. Yes; there were some American gas companies, referred to somewhere.

Q. The American gas companies were, Wheeling, Richmond, Atlantic, Norfolk and Philadelphia, is that correct?

A. Yes.

Q. Now, going back to page 83 of your report, you were asked by counsel yesterday to name a single city selling gas at 90 cents where the per capita sales were equal to or greater than Des Moines. I wish you would name such cities if you have any now?

A. I had this memorandum but it was in my room. My authority is the last issue of Brown's Directory of American Gas Companies for 1911, but for the period of 1910, and I used it for the population supplied and the sales and the price. I have taken prices at 90, or near 90 as near as I could find them; some of them may not give exactly 90. Minneapolis, population supplied, 250,000, sales 1,808,429,000 feet, average per capita 7,232 feet; net price, that is if they pay promptly, 85 cents. Providence, population supplied, 220,000, sales 1,320,000,000, per capita 6,000; net price, 90 cents. Rochester, population supplied, 190,000, sales 1,219,816,200 feet, per capita 6,420; net price 95 cents. Washington, D. C., population supplied 331,000, sales 2,216,506,000 feet, per capita 6,696 feet; price 85 cents, net. Lansing, Michigan, population supplied 35,000, sales 230,000,000 feet, per capita 6,571 feet; net price for light \$1.25, for fuel 90 cents. Racine, Wisconsin, population 35,000, sales 230,886,000,900 feet, per capita of population supplied—in all cases I use population supplied as given in Brown's Directory—6,567 feet. The price is not clearly given so

that one can understand it very well in Brown's Directory; so I turned to the Wisconsin Commission Report which gives in the Racine decision the price they had fixed for 1910, and which I therefore assume is in effect, which is \$1. for the first 4,000 feet a month, 80 cents for the next 11,000 feet, 70 cents for all over 15,000 a month, and a small charge a month for meters—25 cents for 3 and 5 light meters, and larger charges for larger meters. Des Moines is given as follows: Population supplied 88,954, sales 531,991,054 feet, per capita 5,983. I did not put down the price as we all know what it is. Hartford, Connecticut, population supplied 95,000, sales 573,446,000 feet, per capita 6,036 feet; price 90 and 75 4250 cents.

Q. Where was that?

A. That was in Hartford, Connecticut. Ann Arbor, Michigan, population supplied 22,000, sales 145,000,000 feet, per capita 6,591 feet; net price at \$1 and 80 cents is the way it is given; probably a sliding scale according to consumption. That is the list so far as I have observed it in hasty reading or gleaning through Brown's Directory sometime ago.

Q. So that in most of these cities the per capita sales exceed slightly the sales per capita in Des Moines?

A. I only selected cities where it did exceed the amount gives for Des Moines, and also where the price was somewhere in the neighborhood of 90 cents. There are other cities where the sales per capita very much exceed those here and where the price is very different, as for example, Grand Rapids, Detroit, Milwaukee, New York, Boston, etc. But those are very large cities and conditions are different, but the price is very much lower also.

Q. Now, counsel asked you on yesterday if you had had access to the cost or price of cast iron pipe per ton and it aroused some amusement because you referred to Hall's report where it gave the prices per foot. Now did you have access to price or cost of cast iron pipe?

A. I had in my room all the time the paper which I have in my hand which was given me by Mr. Hall and I thought it was in the report; it was a separate tabulation that he handed me in which the price is given per ton.

Q. The memorandum just marked Defendants' Exhibit 45 is the memoranda you refer to?

A. Yes.

4251 The defendants offer and read in evidence at this point Defendants' Exhibit 45.

Objected to on part of complainant, not only for the general reasons to go to each part of the testimony but also that it is secondary and incompetent, it appearing it was not made up by the witness himself, but by Mr. Hall and he not having identified and verified it and not having afforded an opportunity for cross examination in reference to it.

The said Exhibit 45 is as follows:

4252

"DEFENDANT'S EXHIBIT 45.

Des Moines Gas Company.

Price of Cast-iron Pipe.

1. American Cast Iron Pipe Co., Birmingham, Ala.

| | | Per ton. |
|---------------------|--------------------|----------|
| 1910, April | 8" C. I. Pipe..... | \$28.35 |
| 1910, March & April | 10" "..... | 27.85 |
| | 12" "..... | 27.85 |
| 1909, November | 4" "..... | 29.85 |
| 1909, December | 4" "..... | 29.15 |
| 1910, January | 4" "..... | 29.15 |

Freight, \$5.85 per ton deducted by Shippers.

2. U. S. Cast Iron Pipe & Foundry Co., New York.

| | | |
|----------------------|--------------------|-------|
| 1911, Jan. Feb. Mar. | 4" C. I. Pipe..... | 26.35 |
| | 10" "..... | 24.85 |
| 1911, April | 8" "..... | 24.85 |
| 1911, November | 16" "..... | 23.90 |
| 1909, July | 4" "..... | 26.85 |
| 1907, February | 24" "..... | 36.00 |

Freight, \$5.60 per ton deducted by Shippers.

3. J. K. Dimmick & Co., Philadelphia, Pa.

| | | |
|-----------------|-----------------------------|-------|
| 1910, August | 8" C. I. Pipe..... | 26.85 |
| | Less Freight—35½¢ 100 lbs.= | |
| | \$7.10 | |
| 1910, September | 4" C. I. Pipe..... | 27.95 |
| | Less Freight—\$5.85 | |
| 1909, July | 4" C. I. Pipe..... | 28.50 |
| | Less Freight—\$5.85 | |
| | 8" C. I. Pipe..... | 27.50 |
| | Less Freight—\$5.95 | |
| October | 16" C. I. Pipe..... | 26.50 |
| | Less Freight—\$5.85 | |
| 1907, November | 4" C. I. Pipe..... | 38.60 |
| | Less Freight—\$6.27 | |

4. Dimmick Pipe Co., Birmingham, Ala.

| | | |
|-----------|--------------------|-------|
| 1907, May | 4" C. I. Pipe..... | 31.34 |
| | 10" "..... | 31.34 |
| | 12" "..... | 29.73 |
| | 16" "..... | 28.36 |
| July | 4" "..... | 30.33 |
| | 6" "..... | 31.88 |
| August | 4" "..... | 33.92 |

No deduction for freight.

4253 Answer continued: I have before me the monthly prices in Chicago, the first week of each month of 6" cast iron pipe, ever since 1901, and I have averaged them by years. If you care for them, I will give them. You only have to add 85 cents to to get the Des Moines prices.

Q. Yes, give them.

A. The average, 1902, the first week of every month, from the Iron Age and Engineering News, \$32.07.

Q. What sizes?

A. I have taken as a standard the 6". The largest sizes are a little cheaper and the very small ones have been a little higher. For 1903, they are \$331.44.

Q. These are the average prices per ton during the year?

A. Yes, in Chicago, the first week of each month during the year. For 1904 they are \$25.56. For 1905, \$28.25; for 1906 \$31.46; for 1907 \$36.75; for 1908 \$27.25; for 1909 \$26.79; for 1910 \$26.92 for 1911, the first four months, \$24.25. I haven't the other months, except the first week in August when it was \$24.50.

Q. That is August this year?

A. Yes. This is for cast iron water pipe. One dollar must be added for gas pipe and 85 cents for the difference in freight. The average of the three years, 1908, 1909, and 1910 was \$27. Adding \$1.85 would make it \$28.85. It is lower this year. The average this year appears to be about \$24.25 the first four months; adding \$1.85 would make \$26.35.

Mr. GUERNSEY: What was that average for the three years?

A. \$26.99 but I call it \$27.

Mr. GUERNSEY: You add \$1.85?

A. Yes, for the difference in gas pipe and freight.

Q. Then if I have followed you in your reading the current
4254 prices if that is the proper term, for this year, beginning in January, 1911, are considerable lower than the average prices for several years back?

A. Yes.

Q. Anywhere from \$2.50 to \$4.?

A. Yes, there have been individual years occasionally in the past where it has been as low or lower, but the average run has been higher than this year.

Q. Now, I asked you last evening to refer to the cost or rather--yes, the cost of reproducing gas mains in Des Moines, as found by Mr. Baehr in his report, with the cost as estimated by Mr. Haines in his estimate for 1911, and if you have worked that out, I wish you would tell us what difference, if any, you find in it?

A. I have it here somewhere.

Q. I mean Mr. Baehr's figures with his overhead added as he added them.

A. I have those figures. Mr. Haines estimates 2,000 feet of 12 inch pipe on East Eighteenth of which 1,300 feet is from Court to Walnut and 700 feet from Walnut to Lyon.

Mr. GUERNSEY: Pardon the interruption. The blocks here are not 1,300 feet long; that can not be correct.

Mr. BYERS: That 1,300 must be incorrect.

A. There were two blocks of 12 inch pipe aggregating 2,000 feet. I don't know the streets well enough to determine it.

Q. While I am looking for this, let me ask you, what is anything did you find in examining the estimate made by Mr. Haines for the cast iron pipe for 1911 as compared to what it had cost the Company in the past for similar improvements, as to whether it is higher or lower?

4255 A. It is higher than the unit cost given in Mr. Hall's report for that type of pipe, even after allowing for specials.

Q. Is the difference substantial or just a slight difference?

A. As I recall it, there was a material difference; I cannot tell you at the moment. On the 12 inch pipe, 2,000 feet, Mr. Haines estimated a cost of \$38.00 or \$1.90 per foot. The average cost of 12 inch pipe given by Mr. Hall in schedule 5, page 2, is \$1.21. Mr. Haines' is \$1.90; Mr. Baehr's figures with the overhead added \$2.16.

Mr. GUERNSEY: What is the page of Mr. Baehr's report?

A. Page 114. This is obtained by dividing the total in Mr. Baehr's report of that size of pipe \$67,716. by the number of feet 31,349.

Q. Before we go on, you say as given by Mr. Hall; do you refer to his report wherein he shows the unit cost as shown by the books?

A. That is right. I give the page here. He shows according to the books 10,610 feet of 12 inch pipe have been laid at a total cost of \$12,801.68.

Q. And that figures out \$1.21 in round numbers?

A. That figures out \$1.21 as he gives it. And this is for pipe laid since March 1, 1906 during the last five years.

The MASTER: What page is that on?

A. Mr. Hall's report, schedule five, page 2. Now if I may see that copy again of Mr. Haines' report, there is some statement there I want to refer to.

Q. I see that that distance is given in Mr. Haines' estimate, 1,300 feet, between Court and Walnut. Of course it would not make any difference with what I am trying to get at whether he gave the distance long or short; it is the distance and price that he fixes.

A. This states East Eighteenth, Court to Walnut, 1,300
4256 feet, 12 inch; East Eighteenth, Lyon to Walker, 700 feet, 12 inch. That pipe may be laid in a district which it may be more difficult for laying down town than the average of that kind of pipe. That may account for the difference in the unit prices. There may be a little paving to overcome, in cutting in.

Q. There is no paving as I understand it at all between Lyon and Walker Streets on Eighteenth.

A. I have not been over the ground at all. This other pipe, East Eighteenth between Walnut and some other place is down town, is it?

Q. No; East Eighteenth between Court and Walnut is about half way between here and the Fair Ground.

A. Do you wish the other pipe, the 16 inch?

Q. Yes, I want you to go on with it.

A. Then there were 1,200 feet of 16 inch pipe on East Court Street from Fifteenth to Eighteenth, estimated at a cost by Mr. Haines of \$3,200. or \$2.67 a foot. Mr. Baehr's figures are \$3.16 cents, Mr.

Hall's figures from the books, on page 2, schedule 5, \$2.13. I wish to call attention to the parenthesis that appears in the letter in this exhibit, from Mr. Haines to Mr. Morris of date September 1, 1910, in which opposite this estimate for 1,200 feet 16 inch pipe is the statement, partly laid, which would indicate that some of the expenses had already been borne and perhaps paid for, and that this was the amount necessary to finish the job. That of course—all I can say, is that the parenthesis shows, partly laid.

Q. All I want is the number of feet as Mr. Haines has given it and the prices, and we will let Mr. Haines and the Company explain if there are any explanations to be made, I want to get a comparison of these figures as well we can from their own statements.

4257 Going to another question that counsel pressed upon you during the cross examination, the question of working capital; have you given that matter any attention since your examination two or three days ago?

A. I have looked into it a little further, not a great deal. I have made a computation based on Mr. Haines' estimates or statements of a statistical character.

Q. What if anything did you find in Mr. Haines' estimate that gave you information with respect to the material that could be taken care of and carried on hand?

A. He says that the entire storage capacity of the plant is as follows: Generator fuel, 1,520 tons, or 30 days' supply. 300 tons of boiler fuel, or 13 days' supply. 664,000 gallons of oil, which he says is 65 days' supply. Applying the unit costs to that amount of supplies, given in Mr. Hall's report as from the books of the company, in schedule 6 of \$5.85 per ton for coke, which is what is referred to by generator fuel, is \$8,892. Boiler fuel, 300 tons, there are two prices given, \$1.55 for steam coal per ton delivered, and \$2.50 for mine run coal per ton delivered. Taking the \$2.50 the larger figure, it is \$750. 664,000 gallons for the oil, which I took at 2.8 cents a gallon, the contract price, \$18,592. The addition of these three items, assuming the storage receptacles, tanks and bins to be full, is \$28,234, which would be the value of the supplies in the shape of coal, coke and oil necessary.

Q. To keep the storage full all the time?

A. To keep the storage full all the time. And the statement is made in that letter that the storage facilities are ample.

Q. In addition to that there would be some necessary cash for pay roll, and so on?

A. Yes, supplies and fittings and the monthly pay roll
4258 would have to be met; one month pay roll and some supplies and figures.

Q. Now you was examined at some length until, at least, there was a suggestion from several quarters that both you and counsel had reached the limit upon the so-called sinking fund plan. I do not want to take any time with it, further than to ask you if you have prepared a table that illustrates your position?

A. Yes.

Q. Now, Professor Bemis, you may state what Exhibit 46 purports to set out in a brief way, without going into it?

A. It attempts to illustrate my method of treating depreciation in the report and shows what the result would be to the investor. I take six years as illustrative in order to avoid the long tedium of working out the whole period.

Q. You did not take what you had jokingly called the "sacred seven?"

A. No. I took for convenience an investment of \$100,000 at the start in some part of a plant that will have forty-one years of life, as in the forty-one years' life, one per cent will cancel in the sinking fund in that time. So it makes a convenient computation. And forty-one years is not a life too long as usually considered for gas works, although I used a more conservative figure, 36 years, and a percentage of 1.289. Now I assume in this typical plant that there is a thousand dollars a year which can go into the sinking fund, or be divided, plus four per cent on the average investment after deducting the proceeds of the sinking fund. I start with four per cent and the thousand dollars to go into the sinking fund. If they do not have any sinking fund, then as shown by the tenth column, \$5,000 a year they would divide until the end of the time when they would have divided forty-one times that or \$205,000, but would have no plant left. Instead of that we assume

4259 that they wish to have the plant or the value of the plant in some form at the end of the time, and also any year during the time. So take the first line, \$100,000 average investment, the net profit \$4,000 and no sinking fund at the start; no interest on it, but \$1,000 put into it that year. The amount to be in the sinking fund as shown by column 8, \$1,000 the first year; the nominal profit, if no sinking fund is \$5,000. The total profit, plus proceeds of sinking fund December 31, as shown by columns 4 plus 8 which is the result of the sinking fund scheme, \$5,000.

Q. Now we come to the second year. We have there an investment of \$99,000 on which as shown in my report, I estimate a return a four per cent profit on that, or \$3,960. The sum of the net profits up to date would be \$4,000 divided the first year; \$3,960 the second, or \$7,960 and \$1,000 is in the sinking fund, and interest on that at four per cent is \$40. The addition to the sinking fund the second year is a second thousand dollars. The amount in the sinking fund then is at the end of the second year \$2,040. Now the nominal profit if there had been no sinking fund would have been \$5,000 again and the total profit divided at the end of the second year would have been \$5,000 the first year and \$5,000 the second year; but the total profit if there had been a sinking fund would have been just the same, as shown by the additions of columns 4 and 8, as shown by \$7,960. to which added the accumulated interest, \$2,040 in the sinking fund, making it \$10,000. They could stop at the end of that time and they would still have the \$10,000. that is, they would have \$2,040. If they would stop right there they would not be a cent better off or worse off. The same results follow for the whole forty-one years.

Q. In counsel's examination, and I was greatly interested
4260 in it, both your examination and Mr. Hall's because the field is new to me and somewhat of a puzzle too. Counsel

used an illustration, the mortgage, and said, now a man loans \$100 in money and takes a mortgage from the borrower and a note for his \$100 drawing 6% interest. Now he has his \$100 at work and he gets 6% on it, which would be \$6 a year. Now counsel says at the end of 20 years, if he did not spend any of the interest, he would have \$120 of the interest and he would have his original \$100?

A. Yes.

Q. And then he sought to apply that to the gas business, the operation of machines. Isn't the difference right here: The mortgage does not depreciate; the \$100 that is represented by that mortgage works every one of the 20 years?

A. There that difference exists.

Q. And the holder of the mortgage of course gets his \$6 profit, because the \$100 is at work, while in the case of machinery on the theory of depreciation the machine that is earning the return, on the theory and principle of depreciation, the full value of it is not working all through its life, but only that portion of it that is supposed to represent the difference between its cost and its depreciation?

A. The machine is working, but its value is declining.

Q. But the value of the machine is disappearing?

A. Yes.

Q. And that is not true of the \$100 loaned out?

A. Yes.

Q. In other words, if the same principle, if the mortgage principle is applied to a machine, and you also apply the depreciation theory to the machine, then the investor is earning, not only a return on the full value of the machine, but if the depreciation is carried into it he is earning on the value of the machine and depreciation too?

A. If I understand the question right, I should say yes. Of course in a gas enterprise you must allow a price for gas sufficient to finance that depreciation that you do not have to allow in interest on the mortgage; so I had allowed that in operating expenses.

Q. Take a machine now that cost \$100. On your theory you say that it will depreciate; that a fair estimate of the weakening or loss of value in that machine for one year is \$4. so that the owner of the machine, if he wants to keep his capital whole, must make some provision for that \$4.

A. Yes.

Q. Now he sets aside his \$4?

A. Yes.

Q. He has his machine and he has his \$4 and the capacity of the machine, while according to your theory it has weakened \$4 yet it earns just as much as it did the year before?

A. Yes.

Q. The owner has his machine and the \$4 and if the \$4 is added in as counsel suggested it ought to be, then the person who is getting the benefit of the service of the machine and paying a return on it will be paying on more than the value of the property that is doing the business; that is right?

| Yr. | Average invest- ment for reckoning profit. 2. | Net profit. 3. | Sum of net profits. 4. | Sinking fund, Jan. 1. 5. | Interest on sinking fund. 6. | Addition to sinking fund. 7. | Amount in sinking fund. 8. | Nominal profit if no sink- ing fund. 9. | Total nomi- nal profit if no sink- ing fund Dec. 31. 10. | Total net profits plus proceeds of sinking fund Dec. 31. 10=4×8. |
|---------|---|----------------------|------------------------------|--------------------------------|---------------------------------------|---------------------------------------|-------------------------------------|---|---|---|
| 1. | | | | | | | | | | |
| 1. | \$100,000.00 | \$4,000.00 | \$4,000.00 | ..... | ..... | \$1,000.00 | \$1,000.00 | \$5,000. | \$5,000. | \$5,000. |
| 2. | 99,000.00 | 3,960.00 | 7,960.00 | \$1,000.00 | \$40.00 | 1,000.00 | 2,040.00 | 5,000. | 10,000. | 10,000. |
| 3. | 97,960.00 | 3,918.40 | 11,878.40 | 2,040.00 | 81.60 | 1,000.00 | 3,121.60 | 5,000. | 15,000. | 15,000. |
| 4. | 96,878.40 | 3,875.14 | 15,753.54 | 3,121.60 | 124.86 | 1,000.00 | 4,246.46 | 5,000. | 20,000. | 20,000. |
| 5. | 95,753.54 | 3,830.14 | 19,583.68 | 4,246.46 | 169.86 | 1,000.00 | 5,416.32 | 5,000. | 25,000. | 25,000. |
| 6. | 94,583.68 | 3,783.35 | 23,367.03 | 5,416.32 | 216.65 | 1,000.00 | 6,632.97 | 5,000. | 30,000. | 30,000. |

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A. Yes. I want to illustrate my point, the way I put it here, because I have thought it out very carefully. I think my statement should be accompanied with what is on this page and pinned together. I start with a four per cent sinking fund as an investment, as a depreciation reserve, and concede to the Company they should have a right to finance the depreciation at four per cent. Now very likely they will find it far more profitable to invest that depreciation reserve in the plant and make more than four per cent on it; and yet I would allow a price for gas sufficiently high to give them the depreciation necessary at four per cent.

Q. In other words, they could take \$4 and invest it in one of those mortgages at 6%?

A. Yes. And furthermore if the plant is earning 7% or 8% and they put this depreciation into the plant at 8%, these figures would remain true just the same as if we took the plant earning 4% on a sinking fund earning 4%.

The defendants here offer and read in evidence in connection with the witnesses' re-examination Exhibit 46, as follows:

"DEFENDANTS' EXHIBIT 46.

Illustration of the Sinking Fund Method of Financing Depreciation.

The principles followed in preparing Tables 21 and 24 of Defendant's Exhibit #43, are illustrated below:

It is here assumed that a company starts with an investment of \$100,000 in a plant that will wear out in 41 years. An investment fund of 1% of this, or \$1,000 a year, in a 4% sinking fund will yield \$100,000 at the end of 41 years. At that time the plant will be scrapped and the \$100,000 will keep the capital intact. It is further assumed that the nominal profits of the business at the start are \$5,000 a year.

The illustration shows that the owner has the same income every year, whether the depreciation fund is set up or not. To avoid unnecessary details the illustration is only carried through six years.

(Here follows table, marked page 4263.)

It is noticed that the income by the two methods, as shown in the last columns, is the same, not only at the end of the time, but during any year.

The Company is conceded the right to charge enough so as to be able to redeem the principal in 41 years in this illustration (36 years in my Report) even though only 4% is obtained therefrom.

If, however, the Company is making 6% or more net profit above this payment to the sinking fund, it can invest its depreciation reserve in the plant, and in the 41 years have more than the plant, or it need invest less than \$1,000 a year to come out whole.

In either event the returns will exactly equal the returns from a system of financing where there is no depreciation reserve and no plant at the end of the average life.

4264 Q. Now, Professor Bemis, have you examined the estimate marked Exhibit 18 thoroughly?

A. I have looked it through two or three times.

Q. Have you read Exhibits 7, 8 and 9, being certain letters from Mr. Haines to Mr. MacVicar?

A. Yes, those are the letters in a certain pamphlet that has been printed.

Q. Now taking the statement of Mr. Haines in one of those exhibits where he states that the net earnings of the company—in the letter of date November 22nd, where Mr. Haines says: "Deducting from the average annual gross revenue for the three year period the average annual expenditure for operating expenses and taxes there remains an average annual net earning for the period of \$188,369. If you had those figures before you, furnished by the Company, as representing their net profits for a period of three years with Mr. Haines' estimate of a ten per cent or more increase for the subsequent two years, or one year, what rate of return would you figure the Company would receive on a valuation, such as you say is a fair one for this plant taking into consideration now 90 cent gas and the estimated increase in sales and profits?

A. I should first deduct from that gross figure an estimate for depreciation of about \$21,000; enough to reduce it to \$167,000 and then assume a ten per cent increase of that \$16,700. I would consider that was rather too low on dollar gas, because I consider that an increase of business would not require a corresponding increase of investment or of operating expenses; but taking the figures without any allowance \$183,700 I would take as the profit. Then there would have to be deducted an allowance for reduction in price to 90 cents. To do that it would be necessary to turn to some

4265 source of information like Brown's Directory, if that was the only source available of the sales, finding the sales in there to be 532 million for short, and add 10% for increased business and according to Mr. Haines' estimate would add that 53,200,000 to that making 585,200,000 feet. The ten cents per thousand reduction in price on that figure would be \$58,520. I assume that the price would fall ten cents a thousand feet—it wouldn't in Valley Junction—but I understood your question was to assume a ten cent fall all along the line. We therefore would assume a loss on the entire 585 million

feet, which would be \$58,520 on that basis. That would leave \$125,180. \$58,520 subtracted from \$183,700—

The MASTER: I haven't it that way.

A. Perhaps you did not get some of the figures. I have \$183,700 of revenue; that was net revenue on dollar gas. You see I started with \$188,369.65. Mr. Haines' estimate took off enough to reduce it to \$167,000 on account of depreciation, and then added for ten — cent increase of business and profit. Now take off \$58,520 for the reduction in price and you have \$125,180.

Q. What return would that furnish the Company on your valuation?

A. On \$1,600,000 I make that calculation nearly eight per cent.

The MASTER: What did you take for your expenses?

A. I took merely at the request of General Byers the statement given in Mr. Haines' letter to Mr. MacVicar that the average net earnings for the past three years, aside from depreciation, had been \$188,369.65 a year. That was Mr. Haines' letter. The net earnings. Then I took off for depreciation the \$21,400 which I allowed in my report, in round numbers, making a figure of \$167,000.

4266 Q. Now what do you find the return would be on your valuation?

A. 7.81 per cent. I would consider it fair to add something for probable extensions—

Q. Not for the purposes of this question. I want this question in this way: I want to get what was before the council and not what you may have in your mind at this time. Now what return would that furnish on the valuation, the figures used in stating the valuations by Mr. Haines of \$1,739,094?

Objected to on part of complainant for the reason that Mr. Haines did not state that as the valuation. There is no objection to his asking what percentage that would be on that amount in dollars.

A. 7.19 per cent.

Q. Now then I want to get at it in another way, and any explanation you care to make to this later you may make, but I want it in the record in concrete form. Take Mr. Haines' figures—first give me the amount that would be produced by 90 cent gas, assuming the increase to be ten per cent, the increase in total sales to be ten per cent over 1910.

A. You mean in dollars?

Q. In dollars at 90 cents.

Mr. GUERNSEY: Please give us at the same time the number of feet you figure on.

A. I would prefer to take the exact revenue as it was in Exhibit—

Q. I am not asking about the revenue at all for this question. I want to know how many dollars the output of gas for 1910 increased by ten per cent would produce at 90 cents a thousand feet; how many dollars would that be?

A. Assuming 90 cent gas in Valley Junction—

Q. I don't care anything about Valley Junction.

4267 A. To figure it I want to know whether you want it applied to the 532 million feet.

Q. I want it now to apply to the total output.

A. Then 532 million feet of sales.

Q. Yes, with a ten per cent increase.

A. That means an increase of ten per cent, means an increase of 53,200,000, which added to the present 532 million feet means 585,200,000 feet of sales. Now, at 90 cents instead of a dollar, call it all at 90 cents, as I understand your statement, it is \$526,500.

Q. Now, then on page 2 of complainant's Exhibit No. 7 which is the letter under date of November 22, Mr. Haines gives the average annual operating expenses and taxes for the three year period ended September 30, 1910 to be \$303,411.66.

A. That is the average operating expenses.

Q. That is the average operating expense. Now I want you to assume for the purpose of this question that the operating expenses for 1911 would not exceed the average operating expenses for the three years as stated by Mr. Haines, and what would be the net return to the Company on that basis; I mean the net profits, total?

A. On that basis which I would not consider exactly——

Q. I am not asking you to consider that?

A. \$223,000 in round numbers.

Q. Now you said you wouldn't consider that basis, why not?

A. Because the average operating expenses would have to be divided by the average sales in feet for the three years and the figure obtained per thousand feet which might be multiplied into the estimated sales of 585 million feet in 1911, to get the estimates operating expenses. But it might be appropriate to take the average profits as we did a minute ago and increase them proportionately to the increase in output. I think that I could endorse entirely, but this other I don't think I could.

Q. Of course, I don't want you to answer this question on the theory that you have to endorse anything I am asking. How much would you say, with your experience and judgment, the operating expenses of 1911 would exceed the operating expenses of the three years that Mr. Haines took there, 1908, 1909, and 1910, in dollars, not per thousand feet or per cent; just how much in dollars?

A. How much would the expenses exceed for 1911 with that increase assumed at ten per cent.

Q. Yes; I do not mean assuming ten per cent increase in the operating expenses.

A. No, but in the sales. I should estimate an increase of operating expenses of approximately 15%.

Q. In figuring out your increase you assume that the operating expenses for the three years referred to by Mr. Haines were all legitimate operating expenses. What I am trying to get at is not what you have in your mind at all. I want to bring out from you if I can, just what the situation is here from the Company's own standpoint, taking the statement of the Company's manager. Now the operating expenses, average operating expenses, as stated in this letter, include everything that the Company claims was operating expenses

for the three years up to September 30, 1910. Now keeping in mind the character of these operating expenses and what is included in them, what I would like to know is what you say will be the increase in the operating expenses for 1911.

Mr. GUERNSEY: Over what?

Mr. BYERS: Over that average as stated by Mr. Haines.

4269 A. About \$40,000. Somewhere in that neighborhood; about \$45,450 if you assume that all those expenses are legitimate. I think there would be a question as to that.

Q. What is the figure?

A. Leaving everything in as it is \$45,450; that is, take the \$303,000 which I took for short; if you want to take it exact, you would have to take \$303,411.66 and add fifteen per cent to that, which would be \$45,511.75; that is to be added, that is the additional expense.

Q. That would make \$348,923.41; now what was the total of the sales at 90 cents?

A. The total sales at 90 cents was \$526,500. I took the round figure of 585 million feet, and at 90 cents it would be \$526,500.

Q. In other words, if your estimate of 15% as additional operating expenses for 1911 is sound, at 90 cent gas, taking Mr. Haines' letter just as it was written to the council, and assuming his statement as to their operating expenses to be correct would have shown a profit to the Company of \$175,989. would it not?

A. Let me see. The profits we reached a few minutes ago, if I have the figure before me was, \$223,000 and from that was to be deducted \$45,500 dropping the small figures, and that leaves \$177,500.

Q. I am safe in my figures of \$175,000 in round numbers?

A. Oh, yes.

Q. In other words, assuming now that the Des Moines Gas Company's Manager, when he wrote this letter was stating the facts as they appear on the books of the Company, and was operating this plant and managing it as it should be operated and managed, with a fair estimate for an increase of expenses for 1911, would show a return of at least 10% on the valuation of \$175,989 even at 90 cent gas, wouldn't it?

4270 A. Yes.

Q. That is, assuming now of course, you know nothing else about it except what Mr. Haines put in his letter?

A. That is what I am assuming.

Q. And then adding to it your experience and judgment and the information you have given here as to what would be a fair increase in operating expenses for 1911, that is sound, isn't it?

A. There is one thing I think that should be deducted for that \$175,500 that is an allowance for depreciation.

Q. I am assuming now this company—you have in your mind you want to run the company in your way—I want to hold this company now to their own method of doing business.

A. On their report of expenses then this figure is correct.

Q. Now to carry that just a little farther, for the purpose of testing

your judgment, and you cannot do it to the penny, because the figures don't cover exactly the same period, but you have somewhere there handy the sales for 1909, total sales?

A. Yes, I have them before me.

Q. Now, then you have the total revenue too, have you not?

A. That is here; I can get it.

Q. I mean for 1909.

A. I can get it in a minute.

Q. I was going to proceed for the moment to test your judgment on that 15% by getting at the cost of doing this business, when you arrived at it, by taking the thousand feet method, say for 1909?

A. I will tell you how I got my 15%.

Q. Did you get it that way?

A. The way I reached that was to take the three years, 1908, 1909 and 1910 of sales 1,490,414,000 feet, which is divided by three an average of 496,805,000 feet, and compare that with 4271 the estimated sales on the 10% increase, which were 585 million feet in 1911, an increase over that average of 88,195,000 feet, or 17.7 per cent. I believe that increase 17.7 per cent of sales could be brought about with an increase of 15% in operating expenses.

Q. Wouldn't a short way, if it can be done that way, wouldn't a short way to test the accuracy of your judgment as to the increase of expenses be to take a normal year and ascertain from the normal year just what the cost of making a thousand feet of gas was and then apply it to the estimated sales for 1911.

A. Yes.

Q. It would not be exactly accurate, but would be a fair method of testing the accuracy of your judgment?

A. Yes.

Q. Right in that connection now, and the purpose largely of this examination is to bring out here just the situation at the time the council dealt with this rate and ordinance—that \$175,000 in round numbers that is ascertained by the method we have just covered, only takes into consideration the estimated average ten per cent increase that was based, not on 90 cent gas, but was based on dollar gas?

A. Yes.

Q. And does not consider the increase of sales that might follow a ten cent reduction in price?

A. That is true as I understand it. This was based on Mr. Haines' estimate on the assumption that gas would continue at a dollar.

Q. You referred to Brown's Directory of American Gas Companies to give us the statistics for 1911; what kind of a publication is that?

A. It is published by the editor, Mr. Brown, of the Progressive Age, one of the leading gas journals of the United States; one of the two leading journals, and purports to represent the official statements of the companies to the editor for publication in that Directory. Mr. Brown tells me he gets that data that way by correspondence with the companies.

Q. Is it an authority as to gas statistics?

A. It is so recognized by all gas companies.

Q. How is it with municipalities and gas experts and investigators?

A. They refer to it constantly as authority.

Q. I notice on page 389 of the publication, at the top of the page, and over what seems to be the parent or operating companies, somebody has written several names of companies in there?

A. Yes.

Q. Did you write those in there?

A. Yes.

Q. Where did you get the information upon which you made this entry

A. Well, at the moment I don't remember. I think I looked over, in preparing that, three or four publications, such as the industrial section of the Commercial and Financial Chronicle, and the Manuals Poor's and Moody's.

Q. What is the Moody publication?

A. That is a Manual recognized as very valuable, for it is a yearly compilation of financing and operating statistics of all sorts of companies, gas, street railways, steam railroads, and electric railroads. It is in a way one of the two or three great Manuals.

Q. What do you have to say whether or not it is a standard publication covering the matters set out in it?

A. Yes.

4273 Q. So recognized generally?

A. Yes.

Q. Does it furnish certain statistics too with respect to gas companies?

A. Yes.

Q. You may take this book for a moment——

Mr. GUERNSEY: What book is that?

Mr. BYERS: Brown's Directory of American Gas Companies, dated 1911; it is for 1910.

Q. Both you and Mr. Hall were challenged by counsel to state if you knew any cities or any gas companies or gas plants where oil was being sold for less than what the Des Moines Company was paying for it. I wish you would turn to that book for Grinnell, for instance, in Iowa, about page 75 of the book, I think, and state what price, if any, is set forth there for oil at Grinnell.

Objected to on part of complainant as secondary and not competent on that account.

A. Grinnell is given on page 79.

Q. What is the price?

A. 2.78 cents.

Q. Now, take Knoxville, Iowa?

Complainant interposes same objection last made.

A. I find it on page 81.

Q. What is Knoxville?

Complainant interposes the same objection last made.

A. The price of oil per gallon delivered 2.75 cents.

Q. On what page is that?

A. Page 81.

Q. Turn to Shenandoah, also in Iowa?

4274 Complainant interposes same objection last made.

A. Page 85.

Q. What price is given there?

Complainant interposes the same objection last made.

A. Price, oil per gallon, delivered 2.55 cents.

Q. Now Washington, another Iowa town?

Complainant interposes same objection last made.

A. Page 86. Oil per gallon 2.75.

Q. Is that delivered?

Complainant interposes same objection last made.

A. It does not state in that case whether it is delivered or not.

Q. That was the extreme southeastern part of the state; now turn to Waverly in the northern or northeastern part of Iowa?

Complainant interposes the same objection last made.

A. On the same page, 86, 2.62 cents.

Q. Now turn to about page 50 of the book and give us the price delivered, or whatever it is, for Chicago Heights, Illinois?

Complainant interposes same objection last made.

A. Chicago Heights, page 48, price of oil per gallon, 2.5 cents.

Q. And Decatur, Illinois?

Complainant interposes same objection last made.

A. Page 49, 2.28 cents.

Q. Granite City?

Complainant interposes same objection last made.

A. Page 52, price of oil per gallon 1.93.

Q. Greenville?

Complainant interposes same objection last made.

A. Price of oil per gallon, page 52, 2.4 cents.

Q. Jacksonville?

Complainant interposes same objection last made.

4275 A. Jacksonville, Illinois, page 53, two cents.

Q. Ottawa, Illinois?

Complainant interposes the same objection last made.

A. Ottawa, Illinois, page 58, 2.65 cents.

Q. Delivered?

Complainant interposes the same objection last made.

A. Yes, most of those cases say delivered.

Q. Quincy, Illinois?

Complainant interposes same objection last above made

A. Quincy, Illinois, page 60, 2.5.

Q. Drop down to Missouri, page 141, Excelsior Springs?

Complainant interposes same objection last made.

A. Excelsior Springs, Missouri, 2 cents.

Q. Independence?

Complainant interposes same objection last made.

A. Independence, Missouri, page 142, 2 cents.

Q. Trenton?

Complainant interposes same objection last made.

A. Trenton, Missouri, page 147, 2.27.

Q. Springfield?

Complainant interposes same objection last made.

A. Springfield, Missouri, page 146, 2.4.

Q. Now, Des Moines—not given there, I think?

A. Des Moines on page 78, does not give anything about the oil.

Q. I wish, Professor Bemis, if you feel like it, you would take that book during the noon hour and see if you can find from it the price of oil at any single one of the cities in which the U. G. I. controls and operates the gas companies?

A. All right.

Q. Now the price of oil as stated here, and as you find it from Mr. Hal's report was what at Des Moines?

4276 A. 2.8 in Des Moines is the price given by Mr. Hall as in the books of the Company.

Q. Anything in addition to that, was that delivered, or is there an additional charge for delivery and storage?

A. That was the oil delivered.

Q. You were examined with respect to page 64 of your report, and especially that part of the matter that is treated on that page that refers to accidents and damages, or claims as you put it, and I note you have allowed, or figured out on that page .16 cents per thousand feet of sales?

A. Additional to the .38 Mr. Hall allowed in order to take care of such an average as would be obtained including a claim paid in the first two months of 1906, although incurred or resulting from something that happened before that.

Q. Have you taken the experience of the company, say for twenty years, a period of twenty years or ten years or any other period that would probably work out a fair average, to ascertain just what the actual expense to the company had been for accidents and damages and so on?

A. I have no data back of 1904, except the four years period, five year period, 1890 to 1894 inclusive. I don't think as I copied that

data in the clerk's office below I separated the items as to accident but I think I have as to 1904 and 1905.

Q. If you have time, I wish you would look that up for me between adjournment and reconvening. So far as the matter contained on this page is concerned which has reference altogether to the question of operating expenses and what items and how much as to some of them could properly be considered as cost of operation and has no reference whatever to your final conclusions as 4277 to the value of this property?

A. No, it has no reference to the investment or value. It only has reference as it purports to show, to the operating expenses.

Q. And you were trying to work out there what in your judgment would be a reasonable allowance to go into operating expenses for accidents and damages and leakage, and so on?

A. Yes.

Q. So that whether your estimate is sound or whether your figures are all accurate, what do you have to say as to whether in either case it would have any effect whatever upon your judgment as to the value of this property, either the first of January, 1911, or at this time.

A. They were figures upon some illustrations of Massachusetts conditions. The only ones as I recall there is any question of the accuracy of the computations, that is mostly next to the last page, and have no bearing upon the investment or operating expenses here in Des Moines.

Q. What do you have to say, Professor—I do not care to go through these figures again; in fact I couldn't do it, because I am not an expert on figures anyway—what do you have to say as to whatever may be the fact about the accuracy of some of those computations here, as to whether or not in your report you have allowed and considered all that could properly be charged into operating expenses?

A. I have, and I further checked over this report and have made the changes that were very slight that I found necessary, barring the Massachusetts data. I have found no changes, even those I found and made that affected my fundamental tables.

Q. In any way?

A. No.

4278 Q. When you say your fundamental tables, you have reference to the tables that work out what you claim to be the actual investment of the property, and the tables where you worked out what you claimed to be the operating expenses of the company, and the tables and figures where you set out what you claim to be the reasonable price at which gas can be manufactured and delivered in Des Moines?

A. Yes. I have found the expense of 1904 and 1905 for accidents and damages of this company. I believe I testified about that also and perhaps put them in the report, in 1904 .15 of a cent per thousand feet sales, in 1905 .47 of a cent, or taking an average,

numerical average in those two years, .31 of a cent. I allow .54 of a cent. I took the five year average including the disputed item; I gave the company the benefit of the item Mr. Hall had thrown out and reached the average of .54. If I had put in these two years so as to have had seven years average it would have been a lower figure.

Q. The only aid or help to either counsel or the Master in these figures or estimates of operating expenses is in arriving at a fair judgment as to the operations of this Des Moines gas plant for the year 1911 and subsequent years?

A. Yes. Of course I have assumed in my figures that the operating expenses given by the books of the company and so reported by Mr. Hall are correct, and are operating expenses on which one may base conclusions as to operating costs and apply it to the future with some allowance of probably a decrease of cost with increase of business. Now if it be true that the overhead charges of about 30% allowed by Mr. Baehr and Mr. Lea the past five years were charged into operating expenses, so far as incurred, probably not incurred to anything like that per cent, but so far as incurred, 4279 then to that extent the operating expenses that I have used and Mr. Hall used are too high.

Q. In other words, if I have the operation proposition clearly in mind, if this company has charged into operating expenses items that should properly have been charged up to capital and to the plant, the difference, or rather the effect of that method would be to largely increase the cost of making and delivering gas, would it not?

A. Yes.

Q. That is to say, if it should turn out, and if it could be shown if we had the books in such shape and they were kept in such shape that we could ascertain that every time, say five miles or ten miles of additional mains and services were provided for, that all the engineering expenses and the other so-called overhead charges, instead of being added to the plant, or capital account, was charged into the operating expenses, then what would you say as to whether or not gas could be made and sold for even less than what you have figured it here in Des Moines?

A. That is true. The added interest and depreciation on the added investment would not increase the cost as much as the operating expense per thousand feet would be decreased.

Q. Why?

A. Because the capitalization at such percentage still enables those securities to be sold at par and the brokerage charges will be less. As a matter of fact, they will be less than these operating expenses would be in fact. I can show it by taking a year as an illustration probably.

Q. Suppose here is an item this year of \$5,000 for improvements that should be charged to the capital account, but as a matter 4280 of fact charged up to operating expenses for this year, how would that affect the cost of gas for this year?

A. Let me take a typical illustration. Take the year 1910, Mr.

Hall in his schedule 3, page 6, gives a total construction at the works in 1910 as \$26,715.13. In schedule 5 he gives the amount spent that year for construction on mains as \$50,206.78; on services \$18,578.95; meters \$12,715.05 a total of \$108,205.91. Now without turning to Mr. Baehr's report to show the exact percentage for each class of extensions, which it allows for overhead, it is a conservative estimate to use the figure of 30% and for convenience of illustration I am going to take the 30% which he allows for overhead.

The MASTER: That includes taxes and interest?

A. Yes, all of which as a matter of fact, so far as incurred had been charged in the operating expenses for that year. They cannot be paid twice, having either been paid as operating expenses or as construction cost. The construction cost as charged agrees with the base figures without any of those charges put in as estimated by both, in a general way, Mr. Baehr and Mr. Lea and Professor Marks.

Q. Which would indicate that what was called overhead all had gone into operating expenses?

A. Yes. Now if there was overhead or anything like overhead, it would be \$32,464.77.

Q. Now if the construction charges show unit costs of that year so far as we can get unit costs on the distribution system, which is 75% of this, without this overhead added, then this \$32,000 does not exist at all. There wasn't any such expense incurred, or if it was incurred was charged to operating expenses and should come out of operating expenses, which would mean about six cents 4281 per thousand feet last year.

Q. In other words, if I understand that, the advantage is all in favor of the company if improvements and additions to the plant are charged to operating expenses rather than capital?

A. That has not been shown as yet. Let us take the \$32,464.77 and assume it was charged to capital and assume a rate of return to cover depreciation and return on capital of 8%, that would be \$2,597.18. If, however, we had taken 9% to cover depreciation and interest it would be a little higher, \$2,921.83. Let us take for convenience for the moment the larger figure, that divided from the sales of gas of that year for convenience, call it, 532 million feet would be about less than .6 cent, a little over .5 cent per thousand feet sales. To put a larger amount in overhead therefore would increase the fixed charges less than two thirds of a cent while it would lessen the operating expenses six cents.

Q. And that would result in this situation so far as the consumers are concerned, if these charges go into operating expenses rather than into capital or plant, then the consumer pays for the additions through the cost of gas as figured on operating expenses, and then also is the rate fixed upon the valuation that includes those additions and improvements?

A. Yes. Of course I believe this result, among other things, shows there is no such overhead as that; there may be some; I do not think it is half or a third.

Q. If there is, that would be the effect of it?

A. Yes.

Q. The consumer would pay for it and it would still be getting a fair return on the valuation?

A. Yes.

4282 The MASTER: Casualties in operation should be charged as expenses of operation?

A. Yes.

Q. But casualties in construction should be charged to the plant?

A. Yes.

The MASTER: The engineering charges in operation should be charged to expenses of operation?

A. Yes.

The MASTER: But engineering charges in construction should be charged to the plant.

A. Yes.

At this time an adjournment was taken until 1:30 P. M.

4283 1:30 P. M. THURSDAY, *September 28, 1911.*

EDWARD W. BEMIS, being continued on redirect examination by Hon. H. W. Byers, testified as follows:

Q. Did you find any notations or statements in Brown's Directory showing the price at which any of the companies controlled by the U. G. I., pay for oil?

A. No, I didn't find any such notations. I have been through them.

Q. Now I want to run rapidly over a few pages here of your report. Your table on page 71 of your report of profits at 90 cents. In this table did you take any account of the increase, probable increase in the sales of gas for the future?

A. No, this would only apply to fixing rates for the year 1910.

Q. That table then is based wholly upon the operations of the gas plant with your estimate and figures back of 1911?

A. Yes.

Q. And does not cover or attempt to cover any probable increase of either sales or operating expenses under the 90 cent rate?

A. That is right.

Q. Now criticism was urged by counsel or rather covered in his question because you have taken the lowest operating figure or expense, a low-r figure than the company had ever gotten along with before. Was there anything wrong in taking that figure?

A. I did not believe there was anything wrong whatever.

Q. And why did you take it?

A. I explained in my report in a measure, I took the average of expense outside—for a period of several years outside of manufacturing, leakage and taxes. I took last year's taxes which were the highest, I took the manufacturing and leakage of last year which were low, but I gave a reason for believing that will continue.

4284

Q. The low manufacturing cost and the low percentage of leakage indicated did it not not only efficiency in management and operation, but indicated efficiency in apparatus and also as applied to leakage?

A. Yes.

Q. And as you say will continue if the management and the efficiency of the apparatus and machinery were kept up?

A. Yes, the tendency would be to decline in costs.

Q. Rather than increase?

A. Yes. The only thing that could make it go in the opposite direction would be a material increase in the price of coal, coke and oil and I had found no evidence that there was any such increase likely to occur.

Q. Now turning to pages 59 and 60, those pages you were examined quite—your examination was quite lengthy on these two pages. Now if I understand the table on page 60, all you were trying to do there was to take the total sales in feet and then the total assets of those seven Massachusetts companies and divide the one into the other to ascertain the price per thousand, is that what you were trying to get at? I don't mean price per thousand, but the amount of assets per thousand?

A. Reported by the company. These merely show what they report to the gas commission.

Q. That is what you were trying to do was to show in a general way the average investment in these seven companies to the sales of gas in feet?

4285 A. That is right.

Q. And what effect if any would the fact that either the assets as reported were too large or there was errors in the computation have upon any of the fundamental results covered by your report?

A. Nothing, if it were shown that that report was valueless, not correctly tabulated, it would destroy the comparisons of *of* the Massachusetts companies, it would not affect the data as to Des Moines, but it would destroy any comparison with Massachusetts. I have not found any errors in the tabulation the only question that has been raised as far as I am familiar as to whether these companies correctly reported their assets but this is their report, they are higher than Des Moines company in real estate, lower in most of the other proportions.

Q. You were *q*-sked in this connection as I remember it that all you were trying to do was to ascertain the cost of this property as shown by the books. Now that is not true is it, that that was all you were trying to do.

A. With respect to Des Moines?

Q. Yes.

A. Oh no, I was trying to show the cost of operations as well — construction as shown by the books and also some estimates of reasonable cost based on the books and on my general knowledge of the subject, studies of depreciation, the cost of duplication of the distribution system based on what they have charged as construction

of distribution during the past five years and many other matters, what rate of return is necessary to keep securities at par.

Q. Now that was all in the nature of information for the purpose of arriving at what particular final question?

4286 A. Reasonable price of gas.

Q. And what else as to this property.

A. Well the reasonable price was a result of the reasonable investment and reasonable operating expenses and the reasonable rate of return.

Q. And what if anything in addition to that were you trying to ascertain by getting all these facts and figures in your mind to supplement your former experience and judgment, if anything as to the present reasonable value of the property of this company.

A. I don't recall anything else now.

Q. You don't catch the question. Were you trying to ascertain to satisfy yourself at all about the reasonable value of the property the plant as a whole.

A. Yes. I understood I had answered that before, probably I had not.

Q. So that if I understand you now there were two things that you wanted to satisfy your own judgment about fully informing yourself as to the situation here in Des Moines and one was the reasonable price at which gas could be sold and a fair profit returned in Des Moines, and the fair valuation of the property used in the Gas business in Des Moines.

Mr. GUERNSEY: I would suggest that this is more or less leading.

A. In my own words I would say I had one object as the goal, namely, the reasonable price of gas. In order to determine that I had to consider the operating expenses, the proper capital upon which to base a return and the reasonable return or rate of return on that capital so there were these three questions that had to be settled in order to settle the final one which was the reasonable price.

4287 Q. Now the value of the plant that you have given to me two or three times as you fixed it on your judgment and experience, what do you have to say as to whether that rests on all these facts and all this information that you have gathered up here in Des Moines not only by observation and examination of records and books and papers but on the general experience and judgment that you have with respect to that kind of property.

A. Yes, my final result was based on that and also on prospects of growth, that was also considered that I had not mentioned the last few minutes.

Q. Of course prospective growth would not have anything to do with value of the property?

A. No, but as to the reasonable price.

Q. Page 52 of your report has been referred to by counsel or by yourself as showing some remarkable coincidences. Now just what did you have in mind when you acquiesced in that suggestion.

A. I had in mind the showing on page 54 where it is summed up in a table where there is shown to be a very close resemblance between

what the books of the company show to have been the cost of the meters services, mains, works and office equipment and what Prof. Marks estimated would be the cost of new construction less depreciation—no, without depreciation, the other is without depreciation also, the books of the company cost there is given as new cost. Marks' appraisal new as stated there and the remarkable similarity further between those and Mr. Baehr's appraisal save in the matter of street mains where his is materially higher. I mean of Baehr's appraisal, base figures as he calls them omitting land, paving and overhead and the further remarkable similarity between the books of 4288 the company and the cost of duplication today on the basis of the last five years unit cost as given by Mr. Hall.

Q. In other words all you mean to say about that is that as to the physical value of this property there is not very much variation between the several witnesses when you take out overhead charges and those things that have not been considered by yourself or by Prof. Marks like going value and paving, the figures approach close together.

A. Yes.

Q. As to the valuation of the physical property?

A. Of course all the paving that the company had to pay for is included in the book cost statement in the first column.

Q. I know, but I mean paving that they consider that you do not?

A. Yes.

Q. There was some disagreement as to whether or not stable equipment was covered in the item on page 50 I believe it was, the table on page—

A. On page 54 I think.

Q. Yes, page 54. Stable equipment was included in the figures and is included in Prof. Marks' figures is it not?

A. Yes, they are included in Prof. Marks' appraisal. They are included in Mr. Baehr's appraisal. They are included in the books of the company unless paid for out of operating expenses.

Complainant moves to strike the last part of the answer as very obviously a conclusion because the witness testified a good many times he never examined the books, and therefore incompetent.

Q. Just before dinner you gave some figures covering the cost of cast iron pipe and as I understood you the figures were taken 4289 from the Iron Age?

A. The figures were taken directly from the Iron Age by Mr. Alvord and given to me by weeks, then I summarized them by months and by years. The quotation for August of this year I took myself direct from the Engineering News.

Q. The rest of it was from Mr. Alvord's tables?

A. The weekly quotations. I make a computation just now on the ret-r- of stock.

Q. I will get that in just a minute. Now Professor have you worked out something on the value of the stock in this company based upon returns?

A. In the testimony I gave the quotations on bonds somewhat over 97, I have since put in the only company left out, the Buffalo company it still remains over 97 as the average quotations of all the five per cent bonds, 126 in number, that are quoted in the Commercial and Financial Chronicle. I have made two or three computations on different rates of discounts and brokerage charges. For example if the bonds, five per cent bonds and six per cent stock could only be floated at 85 allowing 15 per cent for discount and brokerage charges, it would only require a return of 6.79 per cent on the amount secured at that discount to pay the full interest and discount on par value and cancel or -mortize the discount. Further, if we assume a seven per cent stock, half the investment in stock at seven per cent and half in bonds at five and assume a ten per cent discount and brokerage charge on it, so that even a seven per cent stock only sold at ninety and a five per cent bond at ninety it would only require 6.87 per cent return to pay 7 per cent on stock and five per cent on bonds and -mortize the discount and brokerage charges. Again if we assume stock at 8 per cent selling at 4290 ninety and bonds at five per cent selling at ninety it would only require 7.4 per cent return to pay the 8 per cent on the stock, five per cent on the bonds and cancel the ten per cent discount on each in thirty years maturity assumed on the securities.

Q. Now right in that connection if the investment in the Des Moines gas plant was represented by an actual cash investment in stock say of the amount at which you fix the value of the property and it was earning a return of say six per cent over above operating expenses at what price would that stock go — the market?

A. I believe it would sell at par.

Q. And if it was earning seven per cent return on an actual cash capitalization equal to the value of the property as you found it, what would the stock be rated at in the market, what would be its value in the market?

A. It would be at considerable premium, probably about not far from 115 over 110.

Q. Counsel as I remember it called your attention to the fact that in this state the law prohibited a corporation from becoming indebted for more than two thirds of its capital stock. Now assuming for a moment that is a correct statement of the law, which I don't think it quite is, but assuming that it is, he then next asked you if you knew of any way this company when it was only capitalized at 300,000 or 600,000 later on in 1905, if you knew of any way that the company could get money to improve its plant and go on with its business without making the character of transfer of the property and the reorganization that it did in 1906 and I don't remember just what your answer was now, but was 4291 there anything to prevent the company from paying the money for this stock and then having plenty of money to go on with the business?

A. No, I don't see any reason.

Q. If the stockholders had put actual money into the stock there would have been plenty of money to carry on the business?

A. Yes.

Q. And if prior to 1906, instead of just doubling the capitalization without adding any actual cash if the U. G. I. had paid \$300,000 for its stock, the company would have plenty of money to do its business wouldn't it?

A. Yes.

Q. Without any reorganization at that time?

A. Yes.

Q. Without any reorganization at that time? Counsel asked you if the matter on page 13 of your report was based upon anything except the testimony of witnesses here in this trial and I believe you acceded to that, on page 13 and winding up on page 14. Was that exactly fair to yourself?

A. I believe that a holder of that capacity could be constructed for somewhat less than \$210,000.

Complainant moves to strike the answer as not responsive to the question, we would like to have the witness answer the questions.

A. I thought I was.

Q. What I wanted to get is whether or not the page is not also based upon your general information as well as what you learned from what witnesses testified to here?

A. Certainly.

Q. And isn't that true as to all of these matters where you undertake to use your own judgment after getting this information
4292 as to values and percentages and all that sort of thing?

— Yes.

Q. Now Professor, just one thing more and I think I am through for the time being any way. Counsel began his cross examination with a criticism of your first statement in your report with the exception of half a million dollars the plant appear- to have been entirely built from earnings.

Court: I think that was fully explained at the time.

Mr. BYERS: I don't know whether it was or not.

A. There were nominal \$685,000 of bonds, but \$172,00- of it did not represent any construction in the plant which was issued before 1895.

Q. I wish you would state briefly in the record so we will have it there is it was not fully explained just what you mean by that?

A. I mean that deducting from the bonds, the \$685,000 of bonds the bonds issued for gas rights by the subordinate company to the parent company before 1895 and which did not represent in plant except as the term rights would include it, there were only issued of bonds about \$513,000. I did not find in the record any evidence that the preferred stock contracts or common stock represented money that went into plant except as it had already gone in from earnings, capitalized their preferred stock contracts.

Q. So if I understand you, you got at that statement by ascertaining the difference between the present bonded indebtedness at the organization of this company.

A. Yes.

Q. Together with its assets that came over from the Capital City Gas Light Company?

4293 A. I did not make—I looked into the earnings from as far back as it would go and it indicated that fact that I speak of.

Q. Now I call your attention to a few questions that were put to Mr. Hall by counsel for complainant, perhaps it was the Master that asked the question on pages 3463 and 3464 of the record. I think it is in the cross examination of Mr. Hall, I don't have the index here so I can't turn to it quickly. The question is this, after Mr. Hall had referred to the item of \$2,055,360 then this question was put to him "And the Des Moines Company has actually invested that much in the property in addition to the common stock. A. Yes, actual investment measuring by its bonds and preferred stock contracts will not carry that out. Q. But the bonds and preferred stock contracts and the cash are the actual investment of the Des Moines company? A. Yes". Did you have that testimony in mind too at the time that you made the statement that substantially all of the investment here except about a half million was represented by the indebtedness or the earnings?

A. Yes, that was the beginning, that statement of Mr. Guernsey's which led me to look into the matter.

Q. The question that he put to Mr. Hall?

A. Yes. I looked it up afterwards, looked it up after it was written out, I heard it at the time, and I looked it up afterwards. It is Mr. Guernsey's question to Mr. Hall. On page 33 I would refer to a minor matter, there was a good deal of discussion as to what Mr. Lea included in paving new and depreciated and I have reaches it by taking his whole distribution system and it was thought and I

4294 agreed it would be somewhat fairer to leave out the meters and only take up the mains and services. It does not make a difference of one per cent since I have computed it in the result on the last column of the first line on page 33. Lea I now make present value of his paving as \$373,390 instead of \$370,598 and \$369,604 used at another time. By taking out the meters it leaves a change of one per cent or about one per cent making \$373,390. I only mention that as a good deal of discussion arose over how to reach it, but I did not depend on Mr. Lea's estimates of course in any of my fundamental tables anyway.

Mr. BYERS: That is all for the present.

Recross-examination by N. T. GUERNSEY, Esq.:

Q. Did you ever raise the money to finance a gas plant?

A. No.

Q. Never have had any experience along that line whatever?

A. Not on a gas plant.

Q. Now just a few moments ago, referring to this matter of earnings I think as shown by the books you said I didn't find certain things, that is an expression you used very frequently. You meant you didn't find it in Mr. Hall's testimony?

A. And in the testimony of others. The question was asked several times of Mr. Hagenah and others whether overhead charges had been——

Q. Oh but I was not asking you anything about overhead charges.

A. I thought you were.

Q. I will change the form of the question, when you say I did not find this and that and the other through your testimony, you meant you did not find it in the testimony of the other witnesses.

A. Yes, In a few cases I probably was influenced by statements made to me in response to questions to Mr. Lea and Mr. 4295 Sangster.

Q. You have very frequently in your testimony yesterday afternoon and today referred to Mr. Haines' estimate of a ten per cent increase for 1911.

A. Questions have been asked me about it and I have answered them.

Q. And you brought it in voluntarily a great many times yesterday afternoon and this morning didn't you?

A. I don't think so.

Q. Well you have assumed or stated that Mr. Haines estimated an increase of ten per cent for 1911?

A. Questions have been asked me about taking ten per cent as a basis because he had estimated it to make some computations which I did.

Q. You have stated that he did so estimate it.

A. Yes.

Q. Your only authority for that statement you find in Exhibit 18 do you not?

A. Yes.

Q. And you know that exhibit does not contain -ny estimate for the gross output for 1911 do you not?

A. There was a ten per cent increase—

Q. Just answer the question please, you know that exhibit does not contain any estimate as to the gross output in 1911 do you not?

A. I don't remember an estimate in just that form.

Q. And there is not in that exhibit so far as you know any estimate of what the increase of gross sales for the year 1911 would be is there?

A. Not in just that form no.

Q. There is the only thing that is in there is the estimate 4296 of the maximum day?

A. Yes.

Q. And you have treated that throughout all of your testimony, yesterday afternoon and this morning as an estimate of the year?

A. I answered questions on that basis, I did not volunteer in my report or in testimony anything further than I have indicated.

Q. It would be wrong to take that as an estimate of the increase for the entire year wouldn't it?

A. The facts here and evidence indicate that there probably is not going to be as large an increase as ten per cent this year.

Q. That don't answer my question. It would be wrong to use that estimate on the maximum day as an estimate for the entire year wouldn't it?

A. It would not be exactly right, neither altogether wrong.

Q. Are you familiar enough with the gas business to know that there is a difference between the estimate for a maximum day and estimate for a year?

A. Oh yes.

Q. So you have known that all the time while you have been giving this testimony?

A. Certainly, and I know further that there was not a ten per cent increase being revealed this year.

Q. That is not what I asked you and what I wanted to get at.

Q. During all the time you have been referring to this ten per cent increase you have known that Mr. Haines' report did not state that there would be a ten per cent increase in his judgment in 1911?

A. His report fairly implied it although it did not state it.

Q. Please answer the question?

4297 A. I knew that his report said there would be a ten per cent increase in the maximum daily output.

Q. And you knew in the gas business that was not equivalent to an estimate as to the increase of the output for the entire year.

A. I knew that it was not exactly equivalent although not so far from it, there was a certain general ratio.

Q. You knew in the gas business that was not equivalent to an estimate of the output for the entire year.

A. Not precisely equivalent I knew, yes.

Q. Now then I want to take up with you some of these figures on per capita consumption that you took from Brown's Directory. Is that your only information on the subject?

A. The only information on the subject of those places, I believe it is. I may have on a few of those places some information but none in mind at the present time.

Q. Now then you said that Mr. Brown told you that he made that directory up from what somebody else told him?

A. Some time ago, some years ago. These directories have been going on twenty years, in the making of these directories they are made up he told me by correspondence with the companies.

Q. So that we have the other people telling Brown and then through the directory Brown tells you?

A. The directory is further referred to as authoritative in all gas cases by the companies.

Q. I didn't ask you that?

A. I knew it was authoritative on anything from Mr. Brown, that was not my only reason for relying on Brown's directory.

Q. I didn't ask you anything about reasons. I asked you this, we have the other telling Brown and then through the directory Brown tells you?

4298 A. Yes, as to those figures quoted this morning.

Q. Now then Minneapolis is the first place you take. I think this court takes judicial notice of the federal census of 1910, which was 301,000 instead of 250,000 as you gave it wasn't it?

A. I have not in mind the population, in fact I don't remember the figures I gave you.

Q. As I put it down you gave it 250,000. It ought to be 301,000 ought it not?

A. The statement appears here and I took it from here, I said I took this to mean population in district supplied, it shows here population in district supplied 250,000 and of the city 301,408.

Q. What do you mean by district supplied?

A. I stated this morning I merely stated what the directory gave.

Q. You didn't tell us this, this morning?

A. District supplied I said I used in all cases.

Q. What do you mean by district supplied?

A. The district I suppose reached by their mains.

Q. Did you do that same thing with reference to Des Moines?

A. Took whatever you put in here the same way.

Q. Please answer my question?

A. Yes.

Q. Don't you know that the population that we took in Des Moines was the population of the entire city and not the population of the district supplied by the mains, don't you know that?

A. I saw that they were identical and I believed accounted for by having mains in all streets. I didn't verify it.

Q. Do you think we have mains in all streets in the city of Des Moines?

4299 A. I didn't verify it at all.

Q. Did you believe we had mains in all streets in the city of Des Moines?

A. Well at the time I thought probably all streets that had any houses of any importance, any number of houses.

Q. Do you believe and did you believe this morning we had mains in all streets of the city of Des Moines?

A. All occupied streets. Not all streets, have houses on.

Q. You have seen the map of the mains haven't you?

A. No, I think not.

Q. So what you did with us this morning was to work in a comparison here between Des Moines covering the entire city as against the district supplied in the other cities?

A. Just what I said I gave it.

Q. Did you do that?

A. In some cities the district supplied and the whole city were the same.

Q. I didn't ask you that. You worked in here this morning a comparison between Des Moines taking the entire city and taking for a basis of the other comparison, not the entire city in these other places, but simply the district supplied by the mains, now did you do that?

A. Yes, but they were sometimes identical. I took district supplied in both cases as it gave it as district supplied.

Q. Now then do you believe that was a fair comparison?

A. Yes.

Q. That is your honest belief about that?

A. I thought at the time that it covered as it generally did in the report of water departments of inhabitants served.

Q. I want — to confine yourself to my question and just tell us frankly whether you believed that was a fair comparison or whether you thought it was a misleading comparison?

A. I thought it was fair as I made it and with the statements I made with it.

Q. Did you make the division and figure out the per capita in each instance?

A. Yes. I figured out the per capita as given this morning the per capita of district supplied.

Q. In Minneapolis you included in your sales the sales to the city for street lighting didn't you?

A. I took whatever sales were given here. I didn't stop to see what for.

Q. Isn't it necessary to do that if you are going to get a very intelligent result?

A. I didn't find any separation here between sales for one purpose in Minneapolis and sales for another purpose. I only found total sales the figure I used.

Q. Now then if you should divide that figure you used 1808 millions by 301,000 your result would be almost exactly 6000 per capita wouldn't it?

A. Yes.

Q. And would be nearly identical with Des Moines?

A. Yes.

Q. Only a few feet difference with a net price of five cents less in Minneapolis?

A. Net price in Minneapolis 85 cents.

Q. Fifteen cents less than the present Des Moines price?

A. Fifteen cents less.

Q. Now did you fix up these others in just the same way?

A. I took whatever was given here as I stated for district supplied and sales in every city. I remember making the statement in all cases it included district supplied. Figures are made up that way in water works statistics?

Q. But I have not asked you anything about that?

A. I was explaining why I considered it a fair comparison.

Q. I have not asked you anything about that. I asked you awhile ago if you considered it a fair comparison or misleading and you said yes, it was fair and I was willing to take it at that. Now turn to Providence, the population of Providence 225,000 by the census last year isn't it?

A. Providence population of city 220,000.

Q. Are the works there limited to the city?

A. I don't know, I used that figure that is all I have here. Oh it says here, I have not seen it before says Cranston and East Providence, supplies the city of Providence and towns of Cranston and East Providence.

Q. How large an additional population do they have there?

A. I don't know.

Q. Then we will have to throw out Providence as inaccurate until we get some better information.

A. We could not tell per capita without knowing how large a

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or whether you thought it was a misleading comparison?

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Q. How large an additional population do they have there?

A. I don't know.

Q. Then we will have to throw out Providence as inaccurate until we get some better information.

A. We could not tell per capita without knowing how large a

district was supplying Providence and how much was supplied in Cranston and East Providence.

Q. Now let's have Rochester. What is the population of Rochester as it is given there for 1910?

A. Population of city 219,000, population of district supplied 190,000.

Q. They supply to something besides the city don't they?

A. Yes.

4302 Q. Because I have population here 236,106?

A. It does not give that figure here at all. Gives number supplied 190,000 district supplied.

Q. You took that and divided the total sales by it didn't you?

A. Yes.

Q. Of course that figure is not reliable there in view of the statement there is it?

A. Well one would have to know what is meant by district supplied. That method of statistics is used in water works universally.

Q. I don't care anything about water works, let's stick to gas a little while. I have for Rochester per capita sale 5,152 while — 6,420.

A. That is per capita to district supplied and you have per capita to population as you reckon it, you have put in some suburbs included in district supplied, but whose population is not given here.

Q. So I took it on the same basis we have taken Des Moines and you have it on another basis?

A. Yes, if it is true that your statement of district supplied is prepared different from others.

Q. But I have not any statement of district supplied, I have taken population just as I took it here in Des Moines so as to get the same basis of comparison. Now let's take Hartford, what is the population of Hartford as given there?

A. Population city 99,000, population district supplied 95,000.

Q. And what outside towns was there that are supplied and have been included there?

A. I thought they were included in the population supplied to Hartford, West Hartford, East Hartford and Weathersfield.

Q. You haven't the population of that entire territory anywhere have you?

4303 A. No, I have not got it.

Q. Well I have it 110,000 and your per capita is reduced to 4,547 instead of 6000.

A. They haven't but a few more meters than you.

Q. Don't you think it would be well to revise these figures before relying on him much?

A. All I give them for is what Brown's Directory gives them for.

Q. I didn't ask you that?

A. You have asked me yesterday and I have no authority to go to except Brown's Directory.

Q. Where did you tell us this morning that you obtained the price per ton on cast iron pipe that you tell us this afternoon you obtained from Mr. Alvord?

A. There was one set of prices from the report Mr. Hall gave me from them, and another set of prices taken from the Iron Age and the Engineering News and which Mr. Alvord had tabulated and given me.

Q. This morning you told us you obtained these prices from the Iron Age didn't you?

A. I don't know I said I obtained them, said they were obtained from the Iron Age.

Q. You intended to have us infer you obtained them from the Iron Age?

A. That was why I corrected it.

Q. After you saw I had Mr. Alvord's blue print, after you saw me send for it?

A. I never — you had it until this second.

Q. What you got from Mr. Alvord was a blue print?

A. No, I got more than that. I didn't get the blue print, I got a sheet like a blue print, but it is not a blue print and in addition to that I got tables from which the blue print was made up.

COURT: Who is Mr. Alvord.

A. Mr. John W. Alvord is a water works engineer employed by the private water company in the Des Moines case and also doing large engineering work on water all over the United States, office in Chicago.

Q. Employed by the city of Omaha in the Omaha water case also wasn't he?

A. I think so.

Q. He is a water engineer of very high standing?

A. Yes, that is true.

Q. So that your testimony with reference to these things that are said to come from the Iron Age is predicated on what Mr. Alvord told you that he took from these two papers, that is right isn't it?

A. Except with regard to last August of 1911.

Q. I have a copy of this diagram here—

A. It was not the diagram from which I worked out the figures I gave. I worked them out from the tables which he sent me at the time this diagram which is probably like your blue print. He sent me these tables having on the name— Alvord and Burdick which I tabulated for each month taking as I testified six inch pipe which I have checked making a check opposite six inch.

Q. You stated that your statement was made up from weekly averages didn't you?

A. Yes.

Q. These are weekly averages, they are monthly aren't they or didn't you go into it far enough to say?

A. I took the averages for each year from these monthly— this is for the first week in each month, I stand corrected to that extent.

Q. You didn't study it carefully enough to avoid that error?

A. No I knew at the time I added it and divided by twelve there were only twelve months, but when I stated it this morning I thought

he gave it for every week in the month. He gives it for the first week in every month.

Q. I see that these are Iron Age quotations alone, that is right isn't it?

A. I think they are.

Q. So that there is another error, that is a tabulation of Mr. Alvord's tabulation of what he says here Iron Age quotations.

A. Except the last one which I took from the Engineering News. There are similar quotations in the Engineering News I discovered.

COURT: In your estimation of the value of the plant, you testified in your judgment the plant was worth \$1,600,000. The question I want to ask is this, did you include in that the working capital?

A. Yes.

Q. You testified this morning with reference to working capital a little?

A. Yes.

Q. And in order to get at it you estimated the amount of material and supplies that the company could carry using its facilities up to their capacity?

A. Three material-, coal, coke and oil. I did not say they could not carry a lot of pipe and fittings.

4306 Q. Well then you didn't estimate in making up working capital all of the material and supplies that the company would naturally carry and would be required to carry.

A. A considerable portion—I mentioned this morning some material and supplies.

(Question read.)

A. Yes; all that it would be required to carry.

Q. Now will you look at Mr. Hall's report, Exhibit "F" and tell us what the material and supplies alone, the amount actually on hand as against your \$28,234 was on the 31st of last December?

A. \$73,929.26, but that is other material in the charge there than what I was referring to.

Q. I didn't ask you about that. That, looking at this same exhibit is the lowest amount at which that has been for any time during the five year period as far as that exhibit shows.

A. Yes.

Q. You were familiar with this when you made your figures of \$28,234 this morning were you not?

A. Yes.

Q. Do you think it would be fair to use in estimating working capital \$28,234 as the amount invested in material and supplies.

A. No, something should be allowed for fittings, but on the other hand—

Q. So you didn't intend us to understand by your testimony this morning when you referred to that and was speaking of one month's wages and so on, you didn't intend us to take the \$28,234 as a fair amount at which to estimate the investment in materials and supplies?

A. No, it has a bearing on it, that is all I gave it for. I didn't reduce my original estimate of about \$80,000.

4307 Q. Your original estimate of about \$80,000 is not anywhere near as large as the average of material and supplies and so on as shown by Mr. Hall's report.

A. No.

Q. Now you said that this was the maximum capacity. You were familiar with complainant's exhibit 313 were you not?

A. I don't remember it now or what it relates to, if you will tell me what it is I will answer.

Q. You knew that that showed that the actual amount of generator fuel stock on hand at that time was \$10,500 as against your \$8,893 as the maximum capacity for storage didn't you?

A. No, I did not.

Q. Didn't take the trouble to check with the facts?

A. I don't remember Exhibit 31.

Q. Among the things you ignored were tar and gas stock and purification supplies, articles in stables and stable supplies.

A. Those should be addee.

Q. So that the figures you gave this morning are of no value in determining what the working capital is?

A. They are healthful but not conclusive, got to add a few other things.

Q. Got to add a good deal more than referred to in order to get a reasonable result?

A. I don't think you would have to add over \$50,000.

Q. You refer to the item \$28,234?

A. Yes.

Q. Now you talked about the price of oil this morning. Yesterday you said you had no familiarity with it?

A. I did not, what the prices were.

4308 Q. So what you know now is what you have looked up in Brown's Directory since then. Now in the first place I want to ask you how much of the 2.8 which we pay a gallon here is freight.

A. That I think I seen in some of Mr. Hall's or Sangster's data, but I don't remember it.

Q. When you were comparing Des Moines with towns for instance over in Illinois that are in the Illinois oil fields that is a most important factor isn't it?

A. Yes.

Q. And with towns in Missouri that are nearer the Kansas fields?

A. Freight must be considered the difference in freight, yes.

Q. The freight is a pretty important factor isn't it?

A. It is important, but I won't undertake to say, depends on where the oil is obtained for each section.

Q. We are talking about Des Moines, will it amount to as much as ten per cent?

A. I won't undertake to say for I have not looked it up at all. I don't know at the moment what it is.

Q. Did you ever know?

A. Yes, I remember talking to either Mr. Hall or Mr. Sangster about the records and perhaps there in the report I saw it somewhere.

Q. In order to help out here you may assume that the freight is 1.55 cents per gallon to Des Moines.

A. From where?

Q. The freight we actually pay on the oil we get.

A. From where did you get it may I ask?

Q. I can't tell you, but it shows freight is a factor, that shows freight here is a factor of more than fifty per cent of the cost?

A. Yes.

4309 Q. Now take the towns you referred to this morning, who picked these towns out for you?

A. I had not heard of them until they were asked me on the examination. I am not responsible for the selection at all.

Q. You didn't select them and you don't know who did?

A. Not positively.

Q. Well I don't care as far as that goes anyway. Before I forget it I have a memorandum here when you were figuring up your per capita sales in Racine did you deduct the gas that was sold in Kenosha by the Racine plant?

A. Took just what I found in the directory.

Q. Did you deduct gas sold in Kenosha?

A. I took everything as found in the directory.

Q. You would have to do that?

A. Whether you deduct or not depends on whether the district supplied included Kenosha. I don't know how the district is made up.

Q. Just look and see then.

A. It says population of district supplies 22,000, the city the same. Says at the close supplies Kenosha.

Q. You didn't put Kenosha in?

A. No, I took that always that the district supplied included everything in the whole area whether city or suburbs that were supplied.

Q. And there where there was the population of the district supplied and the city the same, you of course knew that did not include Kenosha?

A. No, I didn't know anything about it, didn't even notice Kenosha until you called attention to it.

Q. So the Racine figures would have to be revised?

A. I don't know. On the basis on which they make it up
4310 if it is to be made up on the basis of all population of the city whether on streets where there are mains or not, then you would have to revise all these figures except where it is otherwise stated. There are some cities I believe, I think there were where they make no reference to anything outside of the city.

Q. The fact is you don't know much about that per capita basis?

A. I have no arbitrary allowance.

Q. You don't know much about the per capita matter?

A. Except what is found here.

Q. That you have not analyzed with sufficient care to be certain on what basis the results are found?

A. I know on what I have my results.

Q. Do you know whether it includes Kenosha in Racine?

A. I don't know what it includes. All I know is what the company report I include, that is all.

Q. I wish you would turn back to Brown's directory and I just want to run through all of the Iowa towns, you gave us some of them this morning. Before I do that, where is Granite, Illinois.

A. I don't know the location of it at all, never heard of it until this morning.

Q. Do you know whether it is supplied from the Illinois fields?

A. I don't know a thing about it.

Q. Do you know anything about what freight rate it pays on oil.

A. No.

Q. Where is Decatur, Illinois.

A. It is in southern Illinois, south central at least.

Q. In the Illinois fields or very close to them?

A. Yes. I have not kept up my knowledge of the present
4311 oil fields very thoroughly in Illinois and many of the states there so I can say just whether the field is active or getting exhausted.

Q. Every city that you named in Illinois and Missouri is closer to an oil field than Des Moines is?

A. I can't say positively as to Missouri, I should think that would be true of Illinois.

Q. And where are the principal oil fields from which this territory is supplied?

A. That I don't know, I asked you and you didn't know a minute ago.

Q. No, I beg your pardon, you asked me where our oil was shipped from.

A. I don't know.

Q. Do you know where the principal oil fields are from which this territory is supplied?

A. No.

Q. Do you know whether there is more than one available source of supply in this territory for companies the size of Des Moines?

A. I don't know.

Q. Do you know whether there are variations in the quality of this oil?

A. In all oil there is liable to be a variation in quality.

Q. Do you know how Des Moines oil is bought and what guaranty if any there is as to quality.

A. I saw at one time a copy of the contract in the hands of either Mr. Sangster or Mr. Hall, I have forgotten just the terms contained now.

Q. You don't know the terms as to guaranty as to quality?

A. I have forgotten them.

Q. Do you know whether these other companies have any
4312 guaranty as to the quality of oil and if so do you know what it is.

A. No.

Q. Will you turn to Brown's Directory for Iowa there and give me the price that the Ames plant in Iowa pays for oil?

A. It does not appear to be given.

Q. That is not a U. G. I. plant is it?

A. I don't think so.

Q. Well didn't you want us to get the inference that the U. G. I. people were the only people that didn't give this, in your testimony?

A. I was merely asked without any previous suggestion on my part whatever to look up that fact?

Q. Then you don't want us to get the inference that it is only U. G. I. plants that do not report?

A. Want you to get the inference I am not counsel for the city in this case.

Q. I would like to have you answer the question. I didn't ask you about that today. Did you want us to infer from your testimony that it is only the U. G. I. companies which do not report the price of oil?

A. No, I didn't say that.

Q. That would not be fair would it. Now turn to Anamosa, that is the next company.

A. Yes, alphabetically.

Q. It pays for oil 2.77.

A. Yes.

Q. And the population is only 3,000 so it is a very small plant, obviously, is that right?

A. The population is given as 3,000.

Q. Now take Atlantic, that is the next town in Iowa.

4313 A. Yes.

Q. What does it pay for oil?

A. 3.25.

Q. And what is the population there?

A. Population district supplied 2,500, city 4,650.

Q. Take Bella Plaine, that is next?

A. Yes.

Q. What is the price given there?

A. It is not given.

Q. Is that a U. G. I. plant?

A. I think not.

Q. What is Belle Plaine population?

A. 3,500. You wish to know the population of the city or district supplied?

Q. I want the city?

A. 4,000 population of Belle Plaine.

Q. Boone is next isn't it?

A. Yes.

Q. What do they pay there?

A. 2.95 cents.

Q. And the population is what?

A. 10,000.

Q. Now then there is a Burlington plant isn't there with which the U. G. I. is not connected, Burlington, Iowa.

A. Yes.

Q. And what do they pay there?

A. Three cents.

Q. And the population?

A. 30,000.

Q. Now there is a Cedar Rapids plant that comes next don't it?

A. Yes.

4314 Q. What do they pay in Cedar Rapids?

A. Four cents.

Q. What is the population?

A. 32,811.

Q. Now the Centerville plant next, what do they pay there?

A. It is not given.

Q. Is that a U. G. I. plant?

A. I think not.

Q. What is the population?

A. It does not give the population of the city, says population of district supplied 7,000.

Q. Charles City comes next?

A. Yes.

Q. What do they pay?

A. 3.5 cents. Population 6,000.

Q. Cherokee, next, what do they pay?

A. Three cents.

Q. Population?

A. 5,000.

Q. Clear Lake next?

A. 3.85 cents population 2,000.

Q. And Clinton next?

A. Three cents, population 25,500.

Q. Council Bluffs next?

A. 2.45 cents population 30,000.

Q. Now Council Bluffs has a radically better freight rate from the Kansas and Oklahoma oil fields than Des Moines don't it?

A. I don't know freight rates, never looked them up at all.

Q. Have to have them to make an intelligent comparison?

A. Be very important to have the-, I think — be desirable.

4315 Q. Take Creston, that is next isn't it?

A. Not given as to the oil.

Q. Is that a U. G. I. plant?

A. No, but it is a coal gas plant and it may be that they don't use any oil. That may be true in a few of these other places that don't give it.

Q. You say that may be true, you have no basis for suggesting it that is you have not looked to see have you?

A. No. It says here process of manufacture coal so implying they do not make any water gas they might use oil for enrichment although that is not certain.

Q. Take Davenport, what do they pay?

A. 3.625, population 43,000.

Q. I happen to notice that Davenport apparently has a new contract has a different rate than what it did in 1909. Look at Brown's

Directory the preceding year and tell us what Davenport was in 1909.

A. Three cents.

Q. And 3.265 in 1910?

A. Yes.

Q. Now the next cities that follow skipping Des Moines and referring to 1910 are Dubuque, Eagle Grove, Fairfield and Fort Dodge are they not?

A. Those are the next four cities.

Q. Does either one of those cities report the price of oil?

A. No.

Q. Either one of them a U. G. I. plant?

Mr. BYERS: State what process as you go along is used in these plants.

A. Dubuque is both coal and water gas. Eagle Grove is coal gas.

4316 Fort Dodge coal gas.

Q. Do they use oil for enriching?

A. It is not stated.

Q. You don't know whether they do or do not.

A. No. From the fact the candle power is given at 18 one might infer that they do not, but they might use a little.

Q. Or that they did.

A. Would not use much, might not have to use any depending on how good a quality of coal they bought?

Q. In other words might infer either way.

A. You could, but probably do not.

Q. Fort Madison is next, what are they paying?

A. Three cents, population 13,000.

Q. Then we come to Grinnell which you gave this morning, 2.78?

A. Yes, 2.78 population 5,500.

Q. On the other side of Grinnell, right below it in the list is Hampton?

A. Hampton is the next place on this list.

Q. What is it paying?

A. 3.24 cents.

Q. Population 2800 is that right?

A. Population 2800, yes.

Q. So that you took the low one there this morning, out of five it was the only one that was under three.

A. I took whatever I was asked and looked it up.

Q. And out of the five, two on each side of it, it was the only one that was under three.

A. Yes.

Q. Now what follows Hampton?

A. Independence.

4317 Q. And what are they paying there?

A. Five cents. Population 3,500.

Q. Skip Iowa City which don't seem to be a water gas plant and take the next one, Iowa Falls, they are paying what?

A. Three cents.

Q. What is Iowa Falls' population?

A. 4000.

Q. And Keokuk?

A. Three cents, population 14,808.

Q. Then coming to Knoxville another low one you gave this morning?

A. 2.75 cents.

Q. And population what?

A. 4000.

Q. And Grinnell and Knoxville are the only two that you gave this morning out of this entire list.

A. I don't remember whether there were any other or not, I did not mark them as I gave them.

Q. Next is LeMars?

A. Yes.

Q. And that is what?

A. 3.09 cents population 5000.

Q. Next Mapleton?

A. Mapleton does not give the price of oil.

Q. But it appears to be a water gas plant, appears to use water gas?

A. Yes.

Q. Is it a U. G. I. plant.

A. I think not.

Q. What is the population?

A. Population 1500.

4318 Q. Maquoketa, I guess you gave that this morning?

Mr. BYERS: No that is one we overlooked.

Q. Maquoketa is what?

A. 2.5 for oil, population of city is not given, population of district supplied 4,500.

Q. Marengo, what is that?

A. 2.67.

Q. What is the population?

A. 2,100 population, the district supplied.

Mr. BYERS: Is that delivered?

A. It does not state—yes, it does, it says delivered.

Q. Then Marshalltown seems to be a coal gas plant?

A. Yes.

Q. Now Mason City is next, that is a water gas plant isn't it?

A. Yes, that is a water gas plant.

Q. What did they pay?

A. 3.35 population of city 12,286.

Q. Mt. Pleasant and Muscatine are coal, the next two.

A. Yes.

Q. Now Nevada is next is it not?

A. Yes.

Q. They pay what?

A. 3.86, population of city 2,300.

Q. Oelwein is a coal gas plant apparently?

A. Newton comes next, oh yes that is not next installed.

Q. Then Osceola that uses oil, that pays what?

A. 3.39 population 3,000.

Q. Oskaloosa next.

A. 3 cents population 9,466.

Q. And Ottumwa?

4319 A. 2.85, population 22,012.

Q. And Perry?

A. 3.55, population 5000.

Q. Red Oak?

A. 2.95 cents, population 5000.

Q. Now a low one there, Shenandoah?

A. 2.55 population 4,500.

Q. Sioux City is not given.

A. No.

Q. That is water gas?

A. Yes.

Q. That is a plant in which the U. G. I. company is interested?

A. Yes.

Q. Then Vinton comes next, 3 cents?

A. Yes, population 3,366.

Q. And Washington a low one.

A. Washington 2.75, population 4,500.

Q. Then Waterloo?

A. 3 cents, population of city 26,000.

Q. Then Waverly?

A. 2.62 population 4,000.

Q. And Webster City?

A. 3.08 cents population 5,208.

Q. That includes all of the Iowa plants does it not making water gas which are reported there in Brown's directory.

A. Yes.

Q. And I believe you have already said you know nothing about the variation in the freight rates?

A. No.

4320 Q. You don't know where their oil comes from?

A. No.

Q. And you also don't know what if any requirements they make as to the standard of the oil to be delivered except in so far as that may be shown as to the Des Moines plant by the record in this case?

A. That is true.

Q. Now do you think in the absence of these factors we can make any very intelligent comparisons about prices?

A. Not conclusive comparisons. I think the information has a bearing.

Q. Now your attention was called again this morning to municipal and private operation of public utilities published by the National City federation in 1907 in connection with your qualifications. Will you tell us again how much time that investigation took, how much time you devoted to it?

A. I was three months in Europe devoting all my time to it. I devoted a third of my time for another six or nine months to it.

Q. Two or three months more then?

A. Yes.

Q. Did all of the members of this committee turn out gas experts?

A. I can't say that they would claim to be gas experts.

Q. Now referring to this sinking fund, Exhibit 46 for a minute —by the way before I take that up, you stated once here either in answer to a question of General Byers or voluntarily that you found no evidence that any increase was likely to occur in the price of coal, coke or oil. Where did you look for it?

A. Why I didn't observe anything in the evidence in this case.

Q. That is what you meant?

4321 A. Yes.

Q. Have you your depreciation table with you?

A. I am looking for it.

Q. I don't mean this exhibit I mean the tables from which you get the figures, your sinking fund table, I want to get you to give some figures if you will?

A. I copied from a sinking fund table some three or four years ago some figures I often carry around with me. I have them here.

Q. Now can you give me say, taking an investment of a thousand dollars as a basis and a twenty year life, such as I assumed in this exhibit that I handed to you on cross examination, can you give me the amount of the sinking fund at the end of each year for that period on a thousand dollar basis?

A. \$20,000 on a twenty year life?

Q. I assumed a thousand dollars. I suppose you have some base figure you take there and multiply it. What base figure do you take?

A. A dollar. A thousand dollars would probably be easier.

Q. Well I just took a round figure for that purpose. This is a four per cent basis.

A. I have a table here that tells how much a dollar yearly added to the sinking fund at four per cent will amount to at the end of each one of the period of years here.

Q. If you can't readily give me this I don't want to ask you to work it out.

A. Perhaps I can, what do you want?

Q. I want to get the amount of one dollar or a thousand dollars or ten dollars, some unit I don't care as to the amount you
4322 take, I want the amount of the sinking fund the first year and each year thereafter up to the end of the 20 year period take 20 year life on a four per cent basis.

A. A twenty year life on a four per cent basis will require a yearly amount added to the sinking fund of three cents 3.582 or for a thousand dollars a thousand times that or \$3.358. One dollar put into a sinking fund would amount each year to a certain sum if you want me to work it out from that I can very quickly.

Q. I want to get at each of these years, if it is a matter of com-

putation, if you haven't the tables showing it, I think it will take more time than I want to spend on it.

A. I can take any year from these tables but it will take some time.

Q. This exhibit 46 now, in the first place you took your net profit on a four per cent basis?

A. Yes.

Q. How would it work out if you take six?

A. If you charge sinking fund at six too.

Q. No, take sinking fund at four and net profit six. Then there would be a difference as you showed in your examination the other day and you would also reduce the amount necessary to set aside?

A. I have not worked it out as to what changes would occur?

Q. This result here depends on a coincidence between your net rate of return and your sinking fund rate and won't work out under any other circumstances?

A. If you put your sinking fund back into the plant it will work out no matter what rate.

Q. Take your sinking fund on your four per cent basis and this defendant's exhibit 46, the plant it illustrates will not work
4323 out unless you assume the same basis of net return will it?

A. Without calculating it, I should say that it would. Well I don't like to answer a question of that kind without working it out. It would strike me off hand that if you put your investment in a less profitable source than 8 per cent you would not work out that result? You have got to assume in working it out along this line the same percentage, but I would not undertake to say without computing it that you could not put it in a four per cent sinking fund and make necessary computations as to how much you would have to put in there and I have not worked out that basis. I would say that this is entirely worked out on the assumption that you get the same rate in your sinking fund that you get in your plant. I don't like to give any data without thinking it out.

Q. What I want to do is to find out how much force I can give to this on your theory. Then as far as you have gone you are unwilling to say that this is good as a general proposition but limited to cases where the sinking fund rate and rate of return are the same or what you call the net profits are the same.

A. Yes, that is as far as I am prepared to go today.

Q. Now your first column is four per cent on the investment for the year in question is that right—your third column it is, the one marked three?

A. The third column is four per cent on the declining values.

Q. You work out investment, average investment for reckoning profit.

A. Yes, and it is four per cent of that column, four per cent of column two.

4324 Q. And that average investment for reckoning profits each year is the difference between the amount in the sinking fund and \$100,000?

A. Yes, exactly. It is what I had in the line before the last column 8. Column 8 amount of sinking fund——

Q. You are not right there are you, add your loss to sinking fund?

A. Column two always declines \$1,000.

Q. Let's get back. You said that column 2 plus column 8 would equal \$100,000 for any one year. Take the first year you have \$99,000 in column two and \$2,040 in column 8, that makes more than \$100,000?

A. Yes. Column 2 states the \$1,000 with a decline every year of the thousand dollars that is added to the sinking fund.

Q. Let's get back to what I asked you awhile ago, that is column two plus column five in any one year will equal \$100,000?

A. Yes.

Q. And that means that column two is the investment less the principal of the sinking fund without adding interest to it?

A. That is right.

Q. That is not the basis on which you figured it in your report is it?

A. I think it is.

Q. Why don't you know that your report shows on its face it is not? Don't you know you deduct for instance 240 odd thousand while your report shows you only put in 191,000 into the sinking fund?

A. Each year——

Q. No, answer my question. Don't you in your report show a deduction from the investment of the amount of the sinking fund plus interest amounting to \$241,117.06 while the amount put into the sinking fund shown in your report is \$191,328.22?

4325 A. That is right.

Q. Now here you don't do that, but leave as your average investment the difference between the principal of the sinking fund and the original investment or total capital?

A. Yes, but I am justified in doing that if you close the investment for the balance at any time you would have to take the proceeds of the sinking fund out of the \$100,000?

Q. I am not asking if you are justified?

A. I did the same thing in both places and come now to a point where we adjust the balance.

Q. Take your page 21, you worked this all out there haven't you?

A. Yes.

Q. And the valuation at the beginning of the year which is equivalent to your column two in this exhibit 46 is in each instance the amount of investment less the sinking fund with its accumulations of interest isn't it?

A. The first column valuation at the beginning is not depreciated I think. I think for example take the first two lines as an illustration that is the valuation of the year before, plus the entire additional investment which was twice the figure, or one half given in

the next column, I think you will find it was twice that figure that has to be added.

Q. I believe I was wrong in my question there and I think I should say so. It was the third column represents the average investment there on 21, the annual added average of investment aside from working capital, that is right isn't it?

A. Yes, that is the average investment also undepreciated. That is not depreciated any more than the first column. The depreciations are not taken out anywhere on that place.

4326 Q. Well let's go to another page then. Go to page 24.

A. The first column again represents undepreciated investment and with the sinking fund—net investment at the end of the year with working capital. Page 24 first column continues to represent undepreciated investment. It is only when you come to the last column of page 24 that you get depreciated investment.

Q. That is your depreciated investment as you show it in your report — the last column on page 24?

A. Yes.

Q. To get that in your report you have deducted in each instance the sinking fund with the accumulated interest have you not?

A. Yes, that is shown on page 24 last column.

Q. Is defendant's Exhibit 46 to get at your average investment for reckoning profits you have deducted only the principal of the sinking fund have you not?

A. I do not reckon profits on this last column of page 24 at all.

Q. I have not asked you anything about profits. I asked you how you got at the average investment for reckoning profits?

A. I should say yes to that question referring to column 2 in that exhibit.

Q. So that this exhibit 46 is not made up on the basis which you have adopted in making your report here?

A. Yes, so far as I used the figures it is because——

Q. Well but you don't use the same figures at all do you?

A. Yes, I should use page 24 just as I used this exhibit for any period in which you stop or balance accounts.

Q. What I want to know is whether you claim that in getting at the average investment as shown in defendant's exhibit 46
4327 you have used the same theory that you used to get your investment less depreciation as shown at page 24 of defendant's exhibit 43.

A. Yes, so far as I make any application of it.

Q. I don't know just what you mean by so far as you make any application of it. Of course if you don't apply it at all you don't use it.

A. I mean this in reckoning depreciation——

Q. Wait a minute, what I want is a direct answer to the question if you can. I wish you would try to give a direct answer. In figuring your average investment as shown on column two of defendant's exhibit 46, you have not applied the same theory that is

applied in figuring investments less depreciation shown on the last column of page 24, defendant's Exhibit 43, have you?

A. No they do not purport to be the same thing, they are not named the same way.

Q. So that if we should apply the theory that is applied in defendant's Exhibit 46, to the facts in your report we would get a different result and a higher result in the last column, larger amounts in the last column of page 24 of defendant's Exhibit 43.

A. Provided you had set the money aside.

Q. No, not setting the money aside just applying these theories to these figures where we haven't anything but theories.

A. The last column of — 24 would be column two plus column 8 I believe of my whole exhibit.

Q. You don't mean that either do you? You mean you would get the last column of page 24, that is apply the same theory you applied to the last column of page 24 to Exhibit 46, we should deduct to get the average investment, column 8 from column 1 instead of deducting column five from column 1.

A. You would deduct column 8 not from column 2, but from the first line of column 2 which is quite a difference proposition.

Q. Now let's go as little farther with this Exhibit 46. You have a column headed net profits. By that you mean the earnings at five per cent, the normal profits shown in column nine less the sinking fund?

A. The only column I have headed net profit is column 3 which is not the one you describe.

Q. You have a column here marked 3 headed net profit?

A. Yes, column three.

Q. That is obtained is it not by deducting something from the column nine each year?

A. No, it has no connection with column nine.

Q. How do you get at — then?

A. Column three is four per cent every year on column two.

Q. So that your man on this defendant's exhibit 46 theory only earns on a hundred per cent of his capital for the first year if he maintains his capital unimpaired.

A. The rest goes into — sinking fund which he still owns.

Q. On Exhibit 46 your man only earns on a hundred per cent of his capital for the first year if — maintains his capital unimpaired?

A. No, because he has obtained possession of the sinking fund at sessions too.

Q. That is simply to maintain his capital unimpaired is it not?

A. This shows that he gets the same income under either arrangement for the sinking fund is earning the same amount.

Q. Let's see, let's take one year to illustrate that. Take the last year you have, he has got in sinking fund including interest
4329 \$6,632.97?

A. Yes.

Q. Now take investment \$94,563.88?

A. He has got a hundred thousand dollars.

Q. Got a little more than a hundred thousand dollars?

A. That is right.

Q. That illustrates what I said awhile ago don't it, and I think it illustrates too the first question that I asked you about this identify in interest rates?

A. I am not sure as to that. I will tell you if you will add the previous line \$5,416.32 and the \$94,583.68 you get just — hundred thousand dollars.

Q. If you add column six to column three in each instance you will get \$4,000?

A. Yes.

Q. In other words if you give him his sinking fund on a straight line basis without charging him any interest on it you maintain his return at the original figure including return on the sinking fund, that is the way you maintain — isn't it?

A. It is not any straight line basis, I don't understand I am using a straight line basis here. What I call straight line basis is the difference—sinking fund basis—this was only put in to meet your statement the other day that a man would not have equality of income and columns ten and eleven are intended to illustrate my theory that he would have that is all?

Q. His real income is in the two columns three and six isn't it that is after you have taken care of—

A. I hold his real income is ten and eleven, one illustrates one method and one the other.

Q. Ten and eleven is the total nominal profit if no sinking fund?

4330 A. That is that represents accumulated earnings under either system, they are identical.

Q. One more question, and see if I understand this. You say your last column eleven equals the sum of column four and column 8.

A. That is right.

Q. That is, it is the sum of what you call the net profits plus the entire amount in the sinking fund?

A. Yes, so that he could stop any year, he would have the same amount, whatever method he would follow.

Q. So that you have classified here as net profits the proceeds of the sinking fund which is maintained to prevent the impairment of your capital.

A. Yes, and you have got to, because otherwise if you have your 5,000 paid out directly as in column 10 at the end of forty one years the capital would divert and the man would have nothing.

Q. Have you checked up these things you were asked to do for us?

A. No, I have not yet touched it, but I will do so.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

4331

Friday Forenoon Session.

SEPTEMBER 29, 1911—at 10 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

Prof. EDWARD W. BEMIS, continuing his redirect examination, examined by Hon. H. W. Byers, testified:

Q. Professor Bemis, you were asked by counsel about the price of oil and the location of oil fields; do you know of any reason why the Gas Company at Knoxville, about 45 miles east of here, on the same railroad with Des Moines, a little town of less than 6,000 inhabitants, should get its oil delivered for 2.5 cents a gallon and Des Moines have to pay 2.8?

A. No.

Q. Now, about working capital, you were interrogated about \$38,000 you referred to as covering the storage facilities; have you made any further examination of that question of working capital in connection with Mr. Haines' estimates and the books?

A. Yes, I have found Exhibit 31 which Mr. Guernsey asked me about on cross examination, complainant's Exhibit 31, analyzing the materials and supplies of the working capital.

Q. What do you find about it?

A. I find, I estimated yesterday how much coal and oil they could store and I find now how much they did have on hand; on the 31st day of December it was \$21,711.89 a little below if I recall what I said they could store, although not a great deal below. In addition I was asked how much they probably would have on hand of tar and purification supplies—

Mr. GUERNSEY: I did not ask you how much they would have on hand; I asked you whether you considered that.

4332 A. The matter was brought up. Now they had on hand tar \$1,335.34; purification supplies \$4,114.30. The gas in the holder—known as gas stock—was valued at \$811.44, a total of \$27,072.97. They then included gas arc lamps in storage for either sale or use on the streets. I am going to modify that; I do not know entirely whether they were in stock or whether they had been sold and had not been paid for; but they valued these gas lights at -3,481.20. That brings up the material and supplies to \$31,354.17. Then they valued their stable equipment at \$5,805.40. If I understand aright Mr. Baehr's exhibit, page 137, he not only gave them working capital but put the stable equipment into the plant. Anyway, he has stable equipment there as cost of reproduction new \$14,625 and present or depreciated value \$9,653; but it is inventoried as \$5,805.40 in Exhibit 31. Adding that brings the total of material and supplies and stable equipment and gas arc lamps to \$37,159.57. When they have a payroll to meet. The total largest payroll of any month this year was July, \$12,375. If they had to have on hand enough to meet that, it would bring the total of the material supplies and other matters just mentioned to about \$49,000

to \$50,000. Now, Mr. Hall, in Exhibit "F" gives the cash on hand at six different periods: March 1, 1906, \$9,788.24; February 28, 1907, \$34,755.59; February 29, 1908, \$17,947.67; February 28, 1909, \$107,632.85; December 31, 1909, \$29,348.52; December 31, 1910, \$49,434.15. Shortly after the date, February 28, 1909, when they had \$107,632.83 there were some payments made I think on preferred stock contracts, and it appears that the money was being accumulated for some such purpose—

Complainant moves to strike out the statement "it appears money was accumulated, etc." as a pure conclusion of the witness, and argument.

4333 Answer continued: Omitting that abnormal amount, the average cash of the other five periods was \$28,254.43, or twice the total monthly pay roll of any month in the year.

Q. This year or last year?

A. This year up to August. If then we add the \$28,254.43 cash to \$37,159.57 of materials and supplies and stable equipment and gas arc lamps, we would get \$65,414. That leaves out the item of store room, which is given here as \$40,251.89. I had the inventory Mr. Sangster had prepared some time ago of that. I have not yet thoroughly analyzed it but apparently over half of it is for construction of mains and other parts of the distribution system and would be therefore a capital in construction purposes; that is, of course, the property of the company just the same for whatever purpose it is used. It is for construction rather than for operation. I should say, to some extent. But if half of it approximately were added to the \$65,000 it would only make \$65,000.

Q. What do you have to say now as to the estimate you made, of \$80,000 being ample?

A. It appears to me—I have not yet fully analyzed the store room account—but that is the basis on which the working capital was arrived at in the Consolidated case in New York by Judge Huff, namely, how much cash they have on an average found it necessary and how much material and supplies, and ignored all accounts receivable and all accounts payable as matters which were more or less balancing each other, and took merely the materials and supplies on hand and added to that the necessary cash, in view of the fact that they must buy on a few days' credit, they can not store more than two months' supply, according to Mr. Haines' letter.

Therefore \$28,000 would apparently take care of the bills as
4334 they come in. I should say therefore, not from \$80,000 of materials, supplies and cash necessary aside from construction purposes—I have not analyzed this to see what that separation of \$40,000 would be, taking about \$30,000 out of it, would make \$85,000 for working capital.

The MASTER: Let me see if I understand the principle upon which you figure it. First they should maintain their credit and meet their bills promptly?

A. Yes.

The MASTER: They should keep on hand supplies so there is no

danger of their being short of supplies for accidents or difficulty in getting them shipped?

A. Yes.

Q. The MASTER: And they should also have enough money to meet their fixed salaries, interest on bonds and matters of that kind, so that the purchase of supplies and to meet their other bills ought not to interfere with that?

A. Yes. Now taking the average as it was on these particular dates, leaving out that abnormal period of one year, the average cash on hand was \$28,254.43. Now adding all these supplies and assuming they had all been paid for, they were not running on credit, and they got their money in that time, assuming all these materials and supplies on hand were paid for, and the cash added, amounts in all to \$65,414. That leaves—you add in \$40,000 for all their store room account, and you get \$105,000; but some of that is on credit for which they are not paying interest; that is the natural way in which bills are paid once a month; there is no interest charge until the end of the month, but the material is delivered right along.

The MASTER: That would not be true of commercial bills?

4335 A. I have asked and been informed by Mr. Sangster that their bills here are paid once a month.

The MASTER: Their commercial bills for supplies, I mean?

A. I understood him to say that.

The MASTER: Just one other thought. You think that \$80,000 or \$85,000 would be sufficient to meet that?

A. Yes.

The MASTER: Do you think that the fact that there is no provision for prompt payment would make some difference?

A. I think under the ordinance there would be necessary some alternative, and as I testified, as I read the decision of the Supreme Court of Iowa in the Cedar Rapids Gas case, they said the Company could adopt some other method of penalizing for non payment. I understood them it could be by consumers' deposits, if they wanted to do it that way. That is a way commonly adopted in New York, for example, where they cannot put in a penalty and where they do not lose any more money per thousand cubic feet of sales than they are losing here. They manage not to lose any more by exacting deposits in such cases as they wish, where the people cannot be relied on. If there was no deposit and no other method in exchange for the loss of the penalty, there would have to be a small allowance made for losses.

Q. There isn't anything you know of to prevent this company from selling all their gas through prepayment meters, is there?

A. I don't know anything about the law. I don't know that it would be practical.

The MASTER: It would require a large expense in meters though?

A. Yes, and it might not be a popular enough scheme to make it desirable.

Q. That is, it might not pay out?

4336 A. Yes.

Q. You were asked yesterday about this estimate and your

attention was called to the fact that Mr. Haines' estimate simply covered the daily output and you acceded to that; that is not quite true, is it? The maximum day, I mean?

A. I have not read his letter since, but I have discovered that from 1904 to 1910, using Mr. Baehr's Exhibit, page 143, the sales have increased from 305,227,167 feet to 556,117,412 feet. I must change it and say, not sales, output; he uses the word output. Gas sent out is the word they use. That was an increase of 82.1 per cent and during the same time the maximum day's send-out increased according to the same exhibit of Mr. Baehr, page 143, from 1,227,000 feet to 2,228,000 feet. That was an increase of 81.6 per cent. When therefore the maximum increase in this year was 81.6 per cent, the sales increased 82.1 per cent, and I have found the ratio of percentage of maximum to the total send-out for each year from 1910 inclusive and worked it out and it shows all through that same tendency to uniformity, showing that the maximum send-out is estimated to increase ten per cent, the average send-out would increase almost precisely the same. The difference between 82.1 and 81.6 being very slight; in fact so far as there is a difference, the tendency is for the sales to increase slightly faster.

The MASTER: Right there, the sales did increase about 6 or 7%; do you remember?

A. What time?

The MASTER: I don't remember. I think the sales over 1909 increased in 1910 something over 6%.

A. The sales in 1911—

The MASTER: I am speaking of 1909?

4337 Mr. BYERS: It was 6.6 increase in 1909, the sales.

Q. I was going to call your attention, Mr. Witness, you answered promptly to Mr. Guernsey that Haines only dealt with the maximum daily output; and in his letter of September 1st he states the percentage of increase in gas sent out for 1909 was 6.6 and then says for the year 1910, estimated, 10 per cent, and then he proceeds to show the months beginning with January to August and sets out the increase by months from January to August, 1910, and not by days. Now the estimate even as set out in the blank, which is the maximum daily output, that fact that he used the daily maximum output, instead of monthly or yearly, would that make any difference with your computation on his estimate?

A. No; his estimate shows—

The complainant objects to the last part of the answer as not responsive and clearly incompetent, because it is an attempt to construe or argue this estimate after he has answered the question.

Q. Why wouldn't it?

Complainant interposes same objection last made.

Mr. GUERNSEY: In what letter do you claim to find that statement?

Mr. BYERS: It is in the letter of September 1st, at the left hand upper corner, and it says August 1st, 1910—

The MASTER: I will call your attention to it now, Mr. Haines in his testimony states it for 1911. I will call your attention to it now because it may be I am mistaken. I am not sure whether Mr. Haines used 50% on the maximum output or on the total.

Mr. BYERS: You refer to his testimony on the stand?

4338 The MASTER: Yes.

A. If I answer that question. I would like that letter.

Q. You stated it would not make any difference and I simply asked you why and you had already practically given the reason.

A. My reasons are, as I testified yesterday, that one can argue pretty closely from the increase in maximum as to the increase in total sales; that is confirmed, as I find, very closely by the statistics of this company.

Q. I don't know whether you remember reading Mr. Haines' testimony at the beginning, at the time this Exhibit 18 was drawn out; the question was then put to Mr. Haines?

A. I don't remember that.

Q. Now, Professor Bemis, just another word or two on the matter that you were cross examined about, starting with Mr. Hall's operating expenses as given on page 20 of his report and adding sufficient to bring the taxes up to 7.22 cents, as they were in 1910, and he claims to 0.54 as they would be for the five year period if all the claims paid in 1906 had been included, and including as does Mr. Hall, the \$10,000 of salaries paid to the United Gas Improvement Company, and all the donations, and excluding only the rate litigation expenses of 1909 and 1910 and including depreciation reduced from six cents, figured on the basis of four cents as you do, what results would be obtained?

Mr. GUERNSEY: Is that 1910 figure on the four year basis?

Mr. BYERS: That means the four year period for all things save manufacturing, leakage and taxes.

A. I have tabulated that here. Their result as shown on page 71, for the five year period, but for the four year period I substituted the very slight modification which I testified I realized should
4339 be made to be absolutely and technically exact for the four year period, which means a change of less than a thousand dollars in the profit and changes the profit per thousand feet on the four year basis from 28.65 which I had in that column, to 28.52 cents, merely a change of .13 of a cent which I had ignored. I have the tabulation here, and carrying it out also for 1911 on the supposition of \$50,000 more capital being in the plant.

Q. What return on your valuation do you find figuring on the four year basis?

A. For 1910?

Q. Yes.

A. I find a return of 9.48 per cent.

Q. What on the five year basis?

A. 8.94 per cent.

Q. What did you add to the sales of 1910 to get the sales of 1911?

A. 6.41 which is the percentage of increase up to the first of

this month, compared with the corresponding period last year, which brought up the sales for 1911 to 563,091,000 feet and made the profit on a four year basis \$161,495, and on the five year basis \$152,283, with the same operating expenses per thousand feet as last year, not assuming any reduction this year in operating expenses.

Q. That is the sum per thousand feet?

A. Yes.

Q. What rate of return would that produce on your valuation?

A. On the four year basis, 9.79; for 1911, on the five year basis, 9.03 per cent.

Q. You say you have the tabulations?

A. Yes, I have three copies here. (Copy presented to 4340 counsel is marked Defendant's Exhibit 47).

The defendants here offer and read in evidence Exhibit 47, which is as follows:

4341

"DEFENDANT'S EXHIBIT 47.

Operating Expenses and Profits, 1910 and 1911.

Starting with Mr. Hall's operating expenses given on page 20, and adding sufficient to bring the taxes up to 7.22¢, as they were in 1910, and the claims to 0.54¢, as they would be for the five year period if all the claims paid in 1906 had been included; and including, as does Mr. Hall, the \$10,000 of salaries paid to the United Gas Improvement Company, and all the donations; and excluding only the rate litigation expenses of 1909 and 1910; and including depreciation reduced from 6¢ to 4¢, the following results are obtained:

| Description. | Four-year period for all save manufacturing leakage and taxes. | Five-year period for all save manufacturing leakage and taxes. |
|--|--|--|
| Mr. Hall, Page 30, for 1910 | 63.42¢ | 65.17 |
| To reduce depreciation from 6¢ to 4¢ deduct | 2.00 | 2.00 |
| Balance | 61.42 | 63.17 |
| To raise taxes to 7.22¢ add | 0.57 | 0.44 |
| To raise claims to 0.54¢ | 0.19 | 0.16 |
| Total expenses thus read- justed | 62.18 | 63.77 |
| Av. Price in Des Moines & Valley Junction | 90.70 | 90.70 |
| Profit | 28.52 | 26.93 |
| Profit in dollars | \$151,769.75 | \$143,100.23 |
| Return on \$1,600,000 in 1910 | 9.48% | 8.94% |
| The profits are 8% on | \$1,897,122 | \$1,788,753 |

| | | |
|---|-------------|-------------|
| The profits are 7% on..... | \$2,169,496 | \$2,044,289 |
| The profits are 6% on..... | \$2,539,829 | \$2,385,004 |
| With sales in 1911 increased by 6.41%, or to 566,091,000 ft., with same operating expenses per 1000 ft., the profits would be... | \$161,495 | \$152,283 |
| The percentage of profit on \$1,- 650,000 of average investment for 1911 would be..... | 9.79% | 9.03% |

4342 Recross-examination by Mr. GUERNSEY:

Q. Jus- a moment ago you stated that those results that you gave were attained with the same operating expenses as last year; that is not true, is it?

A. With the same operating expenses per thousand feet which Mr. Hall used on page 30 of his exhibit for the sales of 1910—no it is what he called his four years' and five years' operating expenses.

Q. Just answer my question, whether the statement that you used last year's operating expenses is true?

A. No. I stated it correctly in the exhibit though.

Q. Now, then, what you did, you took your 63.42 and 65.17 from Mr. Hall's table at page 20?

A. Yes.

Q. So that his testimony will show how they were made up to that time?

A. Yes.

Q. Now you deducted two cents to reduce the depreciation?

A. Yes.

Q. Then you made the same deduction in each instance?

A. Yes.

Q. Then you added .57 of a cent to each one to raise the tax?

A. No, not to each one; .57 of a cent to the four year period and .44 of a cent to the five year period.

Q. You took the actual difference there?

A. Yes.

Q. Then you added .19 of a cent on claims for the four year period, and .16 of a cent for the five year period?

A. Yes.

4343 Q. So that you got for your total operating expenses including depreciation for the four year period 62.18 cents?

A. 62.18 cents.

Q. In other words, the basis you have adopted is somewhat less than the average operating for the four years without any depreciation in it, which is 62.79—if you will turn to page 5 of Mr. Hall's report?

A. Yes.

Q. And the prices you have adopted includes Valley Junction and adds .7 of a cent there?

A. Just as Mr. Hall did.

Q. But answer the question, please?

A. Yes.

Q. So that your additions on account of putting in Valley Junction amount to just about as much as your additions on account of taxes or claims in the four year period and amount to .1 of a cent more than your additions on this account in the five year period?

A. Yes.

Q. And your operating including depreciation on what you call the five year period is 63.77 while the average operating for the five year period as shown by Mr. Hall is 63.34?

A. Yes; taking five years as given on page 5 of his report.

Q. Which of course you know involves certain deductions from the actual operating?

A. Yes, as I recall it, two claims—

Q. I don't care for how many. On the five year period you again added .7 of a cent to the return?

A. Yes, for Valley Junction.

Q. Did you make any figures to see what the result would
4344 be if you based it on actual result of operation instead of on those theoretical figures?

A. They would vary very slightly.

Q. I didn't ask you that.

A. I didn't make the figures.

Q. That is all I wanted to know. Do you think that the computations which you have testified to as to maximum sales, etc., affect the correctness of the statement that Mr. Haines made in this letter that he had estimated the increase in sales for 1911 at ten per cent?

A. I must see his letter—

Q. I don't think you have to see his letter to answer the question. You put in some computations here and what I cross examined you about yesterday was whether or not your statement was correct when you said Mr. Haines in this letter had estimated this increase at ten per cent for the year 1911. Do you think that these computations affect the correctness of that statement in any way?

A. They do not affect what he stated; the letter shows what he stated.

Q. And if we should follow your figures from 1904 to 1910 back, we should find, just as we did in Massachusetts, if you went down to details, it would appear that you could not assume that one year would be anything like the preceding year?

A. Yes, you can. I have taken that. There is a very slight difference. I have the percentage worked out for each year; there is a slight difference, but not much.

Q. Between any two consecutive years?

A. It is not precise.

Q. Let me get you to state definitely. You say there is a
4345 slight but not marked difference between any two consecutive years; is that right or not?

A. Yes.

Q. Now, then in the year ending December 31, 1905, there was an increase of 14.4 per cent—I am wrong about that; I withdraw that question.

A. May I ask what document you are using?

Q. You are testifying from your information?

A. I have the same page.

Q. You are testifying from your own information?

A. I am testifying from Mr. Baehr's data on page 143 of his Exhibit as to the maximum daily and yearly send-out as he gives it.

Q. Now, then, the percentage of increase in the year ending December 31, 1905, was what?

A. Is this the yearly send-out or maximum daily?

Q. I am talking about the yearly send-out.

A. Before I make the computation, I know that year was somewhat of a falling off from the usual conditions.

Q. I thought it was a high one?

A. The percentage or ratio of maximum daily send-out I have before me—

Q. I didn't ask you for it. You got Mr. Baehr's report before you. Please give me what I ask for. I want the percentage of the increase in sales over the sales of the preceding year, that is, 1905 over 1904?

A. 15.49 I make it.

Q. I make it 14.4, but we will accept either figure. Now, then, take the percentage, say of 1909, over 1908, what was that?

A. I think my figures are correct on the other.

4346 Q. I said I wouldn't make any question about that. Now, then, take 1909, over 1908—you are figuring on send-out and not sales, aren't you?

A. I am.

Q. You have not made any figures on the actual sales, have you?

A. Not here. I will if you wish; I thought you were asking me on the send-out.

Q. I was asking about the sales. I don't care, the difference won't be very great.

A. Shall I find the sales or continue the send-out?

Q. Continue the send-out.

A. I am comparing 1909 with 1908, as I understand you.

Q. Yes.

A. 7.1.

Q. About half?

A. Yes.

Q. Now you refer to requiring consumers' deposits. Do you think it would be a popular thing for the Gas Company to say to 20,000 people in Des Moines that they wanted them to put up some money, and do you think that would tend to increase the business?

A. No; it would not be desirable. They don't do it in New York even.

Q. It would be a very unpopular thing, wouldn't it?

A. I think it would not be popular.

Q. Now you said in New York they didn't lose any more money than they did here. Let us have the figures from which you deduce that conclusion, or is that just one of those general statements?

A. In my report I gave the one year that I said I had available, and that was the year in New York, in 1905 or 1906. There is a

page in my report that gives the exact figure. I think it was
4347 .63 of a cent per thousand feet of sales.

Q. Then you predicate that statement on some information for the year 1905 in New York?

A. It was sworn evidence printed by the company?

Q. Please answer the question?

A. I base it on, as I said in my report, all the evidence with me at that time; the one year in New York.

Q. That is predicated too on the statement by the Company without any personal investigation of the matter by yourself?

A. It was audited by Mr. Hall and confirmed.

Q. Are you swearing to it for Mr. Hall?

A. I am willing to.

Q. I think that is probably true.

A. I swear that he did testify he went through the books.

Q. I didn't ask you that. I don't want you to swear what somebody else testified to if I can possibly avoid it.

The MASTER: What is the increase, say for the last four years in cubic feet of gas without regard to percentage, say from 1908 to 1909 or 1907 to 1908?

Mr. GUERNSEY: I think I can give that to you. For that matter it is all in Exhibit 24, I think.

The MASTER: I guess I can get it myself.

A. It is here in Mr. Hall's report. There is a table of sales some where. In schedule 4 of Mr. Hall's report the sales are given for each year since 1894. Now the sales for 1910 are given as 531,991,000 feet.

Mr. GUERNSEY: Does it give Des Moines and Valley Junction separate?

A. This table does not separate them.

The MASTER: I would like to have them for Des Moines
4348 alone if you have got them.

Mr. GUERNSEY: The Des Moines sales for 1910 are 525,101,954; the Des Moines sales for the year ending February 28, 1909, are 460,142,433; for the year ending February 28, 1908 they are 436,550,893; for the year ending February 28, 1907, they are 387,247,556.

The WITNESS: Mr. Hall gives the figures for the period asked for in Exhibit C. For the year ending February 28, 1907, for Des Moines alone he gives the sales, aside from what is used at the works, 385,013,006.

Mr. BYERS: Is that on the first page of Exhibit C?

A. Yes, in green figures.

Mr. GUERNSEY: That does not include the amount used at the works?

A. No, that should be added—2,234,300 and that would make 387,247,306. Now for the year ending December 31, 1910, the amount sold in Des Moines was—

Q. What year is that?

A. Ending December 31, 1910, 521,186,354 feet, to which should be added what is used at the works, 3,615,600, making 525,101,954. The amount used at the works should be added because that is also

included in the expense account on the other side at the same price, one dollar.

The MASTER: I notice there is quite a variation here.

Mr. GUERNSEY: The variation between our statement and this one, I think, is 250 feet.

The MASTER: I have it 24,000 between 1908 and 1909.

Mr. GUERNSEY: Then your honor has the figures wrong in some way. This has been carefully checked; the difference in five years was 250 feet, which would amount to $2\frac{1}{2}$ cents.

4349 The MASTER: I notice between 1909 and 1910 there is a difference of 65,000.

Mr. BYERS: The trouble is one year ends in February and the other in December.

Mr. GUERNSEY: Take this same exhibit for the year 1909, the cubic feet given in the Hall exhibit for that year is 457,883,433, to which you should add 2,260,000.

The MASTER: That would make it about as I have it here.

Mr. GUERNSEY: I think each other year will check in substantially the same way.

Q. Now passing this question, you gave us some more figures on working capital this morning?

A. Yes.

Q. And in order to keep it down you omitted the high year in the cash, which you called an abnormal year?

A. Yes.

Q. Did you omit the abnormally low year?

A. I averaged the others.

Q. Can you give us any good reason why you should only omit the abnormally high year?

A. I omitted that high year—I asked Mr. Sangster, he said there was some special change—

Q. Wait a minute. I asked you whether there was any good reason that you knew of for omitting the abnormally high year and including the abnormally low year?

A. I would say yes; only I would say it was not years, but it was year.

Q. Of course you haven't any practical experience in this matter of working capital?

A. Only, we have had some idea in considering it in water 4350 works management but not in gas.

Q. Your experience so far as gas companies go has been such as your experience in this case, in trying to work it down?

A. Not work it down, but to try and give the value what it should be.

Q. That has always been low?

A. It is on the same basis that I made up my capital in the Cleveland Water Works—

Q. I didn't ask you that. That has always been low, hasn't it?

A. Usually lower than the Company claimed.

Q. Now you excluded the materials on hand that you say go into the capital account?

A. Or balance them with the bills payable. I think the total could be included and balanced with the bills payable.

Q. It must be included whether it balances or not?

A. Either in working capital or in some other capital.

Q. And through working capital is the only way it would get into this valuation, isn't it, as you are making it?

A. Probably.

Q. So that whether it balances with something else don't make any difference on that proposition, does it?

A. No.

The MASTER: You put meters on hand as belonging to the construction account, do you?

A. I did not analyze fully, except to find the pipe on hand—

The MASTER: I say you did not include meters on hand in working capital?

A. No, I did not.

Q. Now, you were asked whether you knew of any reason why Knoxville, a town of small size, about 35 miles east of here,
4351 should be buying oil at a less rate than Des Moines, and you said no. Now do you know enough about the situation to be able to explain that difference?

A. I don't know any reason; that is all I said.

Q. In other words, any small boy twelve years old could answer that the same way?

A. If he were familiar enough with it.

Q. If he wasn't familiar with it he would have to say that, wouldn't he?

A. If he were old enough to know the general principles, that buying on a large scale is buying cheaper than on a small scale.

Q. A man who had absolutely no knowledge on the subject would have to answer that question as you did?

A. He would.

Q. I took the boy as an illustration to emphasize the assumption that he had absolutely no knowledge.

A. Personally, he would have to say he had none.

Q. Now you testified in Cedar Rapids, didn't you?

A. Yes.

Q. What was the rate in controversy there?

A. My recollection—I haven't read the matter over to verify fully—I think the charge was a dollar and I think 90 cents was the rate being sought by the city.

Q. You testified there, did you not, that a lower rate than 90 cents would afford the company a fair return?

A. I don't remember.

Q. You have no recollection whatever?

A. I haven't looked that part of it up.

Q. Did you testify that 90 cents would not afford the company a fair return?

4352 A. I don't know.

Q. You don't know that you did not testify that a dollar rate would afford the company a fair return?

A. I don't remember, I say, what I testified.

Q. You testified in New York, did you not?

A. Yes.

Q. What was the rate in controversy there?

A. The rate in force was a dollar; the rate sought was 80 cents.

Q. You testified there, did you not, that 80 cents was more than enough to afford the company a fair return?

A. Yes.

Q. What was the rate in controversy in Buffalo?

A. The rate in force was a dollar, and I think the rate sought was 90 cents.

Q. You testified in Buffalo that a lower rate than 90 cents would afford the company a fair return?

A. I don't remember. I remember I favored a rate as low as 90, but whether I favored a lower rate I don't remember.

Q. Didn't you testify that a lower rate than 90 cents would afford the Company a fair return?

A. I did not, no.

Q. You testified in Lincoln?

A. Yes.

Q. What was the rate in controversy there?

A. I don't remember.

Q. You testified there, did you not, that the rate which the city sought would more than afford a fair return?

A. I don't remember. I remember testifying the rate sought would afford a fair return. I did that, I know, at Cedar Rapids; whether I testified a lower rate would in either Cedar Rapids 4353 or Buffalo, I don't remember.

Q. What was the rate in controversy in Syracuse?

A. I have forgotten; I think 90 cent.

Q. You testified there, did you not, that the rate which the city proposed would afford the company more than a fair return?

A. I don't remember.

Q. Now you made a report recently in Chicago, didn't you?

A. Yes.

Q. And you reported there, did you not, that the rate which the city proposed would afford the company more than a fair return?

A. Yes, for most of the years.

Q. You were able to do that without making either a physical examination of the plant or an examination of the company's books?

A. My report shows on what I based it.

Q. You can answer my question?

A. To answer it yes or not would be misleading.

Q. Did you, before you made that report make a physical examination of the plant of the company?

A. No.

Q. Did you prior to making that report make an examination of any of the books or accounts of the company covering its transactions for the last five years?

A. No.

Q. Or for the last ten years?

A. No.

Q. Now, then, where else have you testified?

A. In Boston, Springfield and Haverhill.

Q. Take Boston, you testified in Boston, did you not, that the proposed rate would afford the company more than a fair return?

A. I don't remember whether I testified that; I testified it
4354 would afford a fair return.

Q. Did you testify it would afford the company more than a fair return?

A. I did not.

Q. In Springfield you testified that the proposed rate would afford the company more than a fair return?

A. I don't remember.

Q. In Haverhill you testified, did you not, that the proposed rate would afford the company more than a fair return?

A. I don't remember.

Q. What other places did you testify in?

A. In Saginaw, Michigan.

Q. You testified there, did you not, that the proposed rate would afford the company more than a fair return?

A. I don't remember.

Q. What other places?

A. That would apply to all those places, except New York. I have testified in regard to gas matters, not exactly in rate cases, in Philadelphia, Baltimore, and in a rate case in Washington, D. C.

Q. In Washington you testified that the proposed rate would afford the company more than a fair return?

A. I think I did. In most of those places it has been proven by reductions since.

Q. In what other places have you testified as to rates?

A. I don't recall at the moment—Des Moines here.

Q. Here you testified that the proposed rate would afford the company more than a fair return?

A. I don't remember whether it would afford more than a fair return or not. I think I testified it would afford a fair return.
4355

Q. You said it afforded more than a fair return?

A. I don't remember.

Q. The fact is then that you cannot recall any single case in which you have testified where you have not said that the rate fixed by the city council, whether it was fixed after an investigation of the facts or not, would not afford the company more than a fair return?

A. I probably did as the company's experts always testified to the contrary and generally found to be wrong by subsequent results.

Q. You cannot recall a single case where you had testified, where you have failed to testify that the rate proposed by the city council would afford more than a fair return, can you?

A. I don't remember any case, nor any case in which the experts on the other side were not found to be wrong by subsequent results.

Q. Now, then, what I want to get at is whether you know of an instance where a rate fixed by a city council without any preliminary investigation has failed to be vindicated by you as at least high enough, and probably too high, where you have been called in?

A. I do not recall at the present.

Mr. GUERNSEY: That is all, subject to these matters that were left over.

Complainant moves to strike out the testimony of this witness and each portion of it on account of the general objections made to it, and because it is in each instance hearsay, argumentative, and because the witness has assumed to attempt to perform the functions of the court, and by an attempt to review the testimony he has
4356 in this attempt paid no attention to the testimony adverse to him and has attempted to decide and then under oath testified to the ultimate conclusions which are to be submitted to the court in this case, and because the testimony is hearsay, secondary, argumentative and is not proper testimony, and that it is not testimony either as to facts within the knowledge of the witness or as to matters of opinion predicated upon expert knowledge of the witness.

Witness excused.

4357 JAMES R. HANNA, being first duly sworn on part of defendants, examined in chief by H. O. Brennan, Esq., testified:

Q. You have given the reporter your name?

A. Yes, sir.

Q. You have resided in the city of Des Moines for how long?

A. Practically all the time for twenty-one years past.

Q. And what official position do you now hold in the city of Des Moines?

A. Mayor of the city.

Q. And how long have you been Mayor of the city of Des Moines?

A. Since the first Monday in April a year and over ago.

Q. That would be the month of April, 1910?

A. Yes, sir.

Q. And prior to the time that you became Mayor of the city, what particular line did you follow?

A. I was teacher in Highland Park College, teaching chiefly English and economic subjects.

Q. What experience did you gain in that respect as to the length of time that you taught those studies?

A. Well, I taught on those particular lines for the last several years before I came into office.

Q. In connection with your duties as teacher of these subjects, Mr. Mayor, I will ask you if you did in fact make investigations with respect to municipalities and the government of the same, and particularly with respect to the conduct and operation of public utilities?

A. Yes, sir; there were always those chapters and topics in the more modern and recent text book on the subject.

4358 Q. That line of investigation covered your entire period engaged as teacher?

A. Do not understand the whole twenty-one years I was teaching

these economic subjects particularly, but for the last six or seven years.

Q. You were a teacher in Highland Park College?

A. Yes, sir.

Q. That is a college located in the city of Des Moines?

A. Yes, sir.

Q. Now it is sometimes intimated or insinuated that the city council in dealing with public utilities do not measure up to a certain degree of efficiency with respect to investigations that should be made, and I wish you would tell the Master, Mr. Mayor, just what investigation, if any, you made with respect to the passage of the ordinance which is now in controversy, prior to the time that the ordinance was introduced in the council and placed upon its final passage?

A. It was a matter of common knowledge, of course, for several months that there was to be a revision of gas rates to become effective the first of January 1911. We had our minds more or less upon the subject, or at least I had my mind more or less upon the subject for perhaps two years before that time and more than that. But particularly as the end of the year 1910 approached I began making special investigations. I wrote to most of the cities of something like the size of Des Moines, particularly in the middle west; I made special investigation in the city of Minneapolis, where I happened to be when their rate case was on there, and I got these rates and tabulated them. The matter was referred by the council to Mr. MacVicar to formulate an ordinance and present it to the council. I got this matter together as a sort of a preliminary
4359 for my information in order to vote intelligently upon this proposition when it came to the council. This special investigation was perhaps in October, November and December, three months preceding the presentation of the ordinance, which was along about the 25th or 27th of December, I think.

Q. Now by virtue of your position as Mayor of the city of Des Moines, what title do you have with respect to the different departments of the city; are you a superintendent of any particular department of the city government by virtue of your office as Mayor?

A. Designated as Superintendent of the Department of Public Affairs.

Q. Did you make any additional investigations with respect to the gas situation, aside from securing information from other cities as to the price they were paying for gas; that is to say, did you make investigations with respect to the candle power and the thermal values of the gas and freight rates, the price of oils and matters of that kind, and if so, please tell the Master what investigations you made along these lines.

A. Well, perhaps I should say first—I hardly know whether it is in this question or not—that I had made quite a little investigation into the cost of gas, the actual cost of making gas in England and the estimates that our American economists put upon the increased cost of this product over that in England, to arrive at the general

cost of production of gas in the United States. Then I had studied the question of different kinds of gas, coal gas and water gas, etc., and the candle power and thermal or standard measures of gas, or testing gas by its candle power or thermal heat units and had worked out my own opinions along these lines quite fully.

4360 Q. And in securing data or information from other cities, did you apply the information which you had received by virtue of those investigations to which you have referred?

A. Yes, sir; particularly the information I got from Wisconsin and Minnesota, as being closest to our situation here

Q. Did you make any effort to ascertain the conditions in Des Moines as compared with other cities with respect to unit prices of coal or coke, oils and matters of that kind?

A. Yes, sir. I sent out a general letter to a great number of cities in which I asked perhaps eight or ten questions, among them was the question of special advantages in the price of coal and coke and oil that other cities had for the manufacture of gas.

Q. And did you receive a response to the questions which you propounded?

A. Yes, sir; not always intelligent, but many of them very good answers.

Q. I wish you would tell the Master in a general way, Mr. Mayor, just what length of time you were engaged in securing this information prior to the passage of the ordinance in controversy?

A. I do not know whether I could be very exact about that, but my impression would be that I probably began these inquiries along about October and that I was getting responses along in November and early December.

Q. You spoke of its being commonly understood that some readjustment would be made, or an adjustment with respect to the rates for gas in the city of Des Moines from and after the first day of January 1911; was that due and on account of the fact that the ordinance in force at the time would by its terms expire at that date?

4361 A. That was the understanding we had, and was spoken of, I remember, shortly after I came into office, that the period upon which the price of gas had been agreed upon between the city and the company would expire January 1st, 1911.

Q. And therefore it was considered necessary that these investigations should be made by you and the other members of the council to inform yourself with respect to the prices which other cities were paying and the cost manufacture and delivering gas in the city of Des Moines?

A. Yes, sir.

Q. Now, I will ask you, Mr. Mayor, if in connection with those investigations you considered the statements which the Gas Company had filed from time to time with the city treasurer with respect to the amount of gas they were selling during the several years under the ordinance in effect prior to January 1, 1911?

A. I do not know that I can answer specifically, except that I

got statistics so far as I could with reference to the Gas Company, both as to the amount of sales and the capitalization, represented in the correspondence between the Company and the representatives of the City and statements to the Assessor, etc.

Q. What I wanted to ask you was whether or not you made any investigation or study of the development of the gas business in the city of Des Moines, say from the year 1893 up to the time that were making the investigations?

A. Yes, sir; I think I have gone into that with pretty close accuracy.

Q. Did you attempt to inform yourself with respect to the results which were secured both as to the out-put of gas and increase in the sales of gas covering the period when the ordinance to 4362 which I have called your attention would automatically reduce the rates?

A. That is to say, the increase of sales as corresponded with the reduction in price.

Q. Did you inform yourself with respect to the distribution system of the Des Moines Gas Company, as to the number of miles of mains which it had in the service.

Judge CARR: I would suggest that these questions are all very suggestive and leading, and I object to them for that reason.

Q. Do you now recall, Mr. Mayor, how many miles of main you were informed the Company had at that time?

A. My recollection is that there was—I got different figures, slightly different figures—about 180, 182 or 187 miles at different times.

Q. What did you learn as to the number of meters or services which the company had installed in the service?

A. The figure that I think was given me was between 19 and 20 thousand.

Q. I want to avoid asking leading questions as much as possible with reference to this matter, but I would like to have you in a general way, yet in some detail, tell the Master the scope of the investigation which you made with respect to this contemplated ordinance which the council had ordered Mr. MacVicar to report with respect thereto?

A. You mean investigations as to the factors in the local situation?

Q. Whatever investigations you made personally, or those you made in connection with Mr. MacVicar or any of the other members of the council.

A. Well, of course, I read very carefully the correspondence 4363

Haines. I had taken particular pains to follow up the assessments of the Gas Company during the years preceding. I had taken pains to get the number of miles of mains in the city and the number of consumers per mile, connections per mile; the total number of connections, and deducing the number of connections per mile, then making comparisons between this and especially

the city of Minneapolis, and also making comparison between the rates in Minneapolis as being the closest city and the city of Des Moines. I found as I recall now that the city of Minneapolis had about 120 or 125 connections per mile and the city of Des Moines had had 105 or 110 per mile.

Q. You mean services per mile?

A. Services, yes, sir. The Minneapolis rate being 85 cents per thousand for the public and 65 cents for the city, and making some deductions or additions in favor of the larger city, with perhaps certain more favorable conditions, I fixed in my mind that 90 cents would be about the same here as 85 and 65 there.

Q. Did you make any study with respect to St. Louis?

A. No, sir. I did not make very much comparison between Des Moines and larger cities. I tried to get cities mainly somewhat within the range and size of this city.

Q. And made comparisons as to the prices that were being paid in the several cities?

A. Prices and conditions.

Q. You say you read the correspondence between Mr. Haines and Mr. MacVicar?

A. Such as was published; there may have been some I did not see.

Q. I show you a copy of Defendant's Exhibit 44 and you may examine that and tell the Master if that is the correspondence to which you refer?

A. I believe this is the same thing as that of which I received a copy. It is, of course, the same thing.

Q. Did you study the figures which are referred to by Mr. Haines in the letters?

A. A large part of them at any rate.

Q. Did you confer with the other members of the council at any time with respect to the correspondence or with respect to the ordinance which was under consideration?

A. Very little. I did casually with Mr. MacVicar I believe.

Q. Now, getting down to the 27th day of December, 1910, I think that is the date upon which this ordinance was passed, I will ask you if the ordinance in controversy before it was put upon its final passage was discussed in the council chamber?

A. There was some rather brief discussion, yes.

Q. Did you have any data or information which you had secured at that time?

A. Yes, sir; I had this data I have outlined before here.

Q. Was that referred to in the discussion which was had with respect to the ordinance?

A. I brought my tabulation, as I recall it, before the council, that is in the council chamber, and had it on my desk before me and used it as a basis of my own remarks.

Q. I believe you have stated that prior to that time, from the investigations which you made, that you had satisfied yourself that a 90 cent rate would be fair and equitable to the Gas Company and to the consumers of the city of Des Moines?

A. Yes, sir.

Q. Did you in connection with that matter consider the rate of return to the company and what expenses they might pay
4365 from the 90 cent rate?

A. Yes, sir; I had a theory in my mind about the necessity of having depreciation taken care of and operating expenses, interest on bond investments, etc.

Q. And taxes?

A. And taxes.

Q. Did Mr. Haines confer with you at any time prior to the passage of the ordinance?

A. Not prior to the ordinance as far as I recall now.

Q. You had some conferences afterwards?

A. Yes, sir.

Q. I will ask you, Mr. Mayor, what the fact is as to whether or not the ordinance in controversy, as far as you are concerned, was passed on the 27th day of December, 1910, without any prior investigation with respect to the conditions in this city or other cities similarly located, and that a rate of 90 cents was arbitrarily fixed without any consideration of the subject?

A. No, sir. I had pretty clearly in mind what I thought ought to be a fair rate here.

At this time an adjournment was taken until 1:30 p. m.

4366

1.30 P. M. FRIDAY, September 29, 1911.

James R. Hanna.

Cross examination by Hon. GEORGE H. CARR:

Q. When was it you assumed the duties of the office of Mayor of the city of Des Moines, what date?

A. The first Monday of April, 1910.

Q. Prior to that time had you had any official position in the city of Des Moines?

A. I had been — member of the board of library trustees for some years, not otherwise.

Q. Prior to that as I understood your testimony you were a professor or instructor at Highland Park College?

A. Yes, sir.

Q. For how many years prior to April, 1910, had you been an instructor at Highland Park?

A. Well a regular instructor from 1892 up until that date with the exception of three years along about 1900, 1901 and 1902.

Q. And in a general way what was your business during the interim you have spoken of?

A. You mean these three years I was not in the college?

Q. Yes.

A. Well I was on my farm part of the time and doing a small business buying and shipping produce, etc.

Q. Was that in Des Moines the business you conducted?

A. For a Des Moines firm in Western Iowa.

Q. You did not during that interim reside in Des Moines as I understand?

A. Only about six months of these three years I was in Des Moines. Otherwise I was in western Iowa.

4367 **Q.** Prior to becoming an instructor in Highland Park College had you followed the occupation of instructor in any other school?

A. Yes, I have been not a regular member of the faculty, but assistant in western Normal college for some little time before I came to Des Moines.

Q. For how long?

A. Well I had been there in the school for three years, but during the last year or such a matter I was studying part of the time and teaching part of the time.

Q. Now I wish you would tell us precisely what subjects were embraced within the instructions that you were conducting at Highland Park College during the time you were there?

A. During these last years I speak of?

Q. During the entire period?

A. During the first years that I was there I was in Foreign language chiefly and assistant in English. Those later years after I came back that I have spoken of I spent my time on English literature largely and on economics and government as secondary subjects.

Q. And how long a time followed after you returned to the college until you were elected to your present office?

A. About seven years.

Q. And during that time as I understand you, you devoted your time largely as an instructor in English and foreign languages.

A. No. Foreign languages in that first period and English and economic subjects after that time.

Q. Now will you tell us precisely what was embraced in the subject of economics which you covered as an instructor during that period, what subject or what particular branch if there are
4368 branches of the subject of economics you taught?

A. Well of course there is a general subject of economics and then that is generally divided into primary and what you might call a normal course or a teacher's course and then the general subject for college classes. My work would generally be that general subject for college classes.

Q. What was embraced within that field of study, just what particular subjects did you cover?

A. Well there would be just the general subject of economics dividing it into production and consumption and transportation different subjects, the text divided different ways.

Q. The broad general field of economics?

A. Yes, with chapters of course devoted to taxation, public utilities and things of that kind as phases of these general subjects.

Q. You say there was a chapter devoted to that subject of public utilities?

A. Generally, not in all books?

Q. What text books did you use?

A. Well we generally used something like Gide, or Patten or Laughlin or some of those of that class.

Q. Confining the inquiry now to public utilities, what particular branch of the subject of public utilities did your text books deal with if you confined yourself *to* your text books and if not what particular branch of the subject did you deal with if you went outside or beyond the text books.

A. My teaching of course was confined to the general treatment of the subjects such as you would find in these general text books with perhaps a chapter on railroads, perhaps a chapter on municipal utilities.

4369 Q. Did the author deal with the subject of ownership of these utilities, that is public or private ownership?

A. Naturally.

Q. And was a good deal of the inquiry or study addressed to that question as to whether public or private ownership of public utilities was preferable.

A. A text book of course does not attempt to get at anything except to present the argument for different things. Private ownership will — discussed with its merits set forth and public ownership with its merits and demerits endeavoring to be entirely impartial in its setting forth of these things.

Q. That embraced a good deal of the study on the subject of economics as applied to public utilities did it not?

A. Well a reasonable per cent, yes certainly.

Q. Now aside from the question of public or private ownership, what other special branch of public utilities did your text book deal with or did you deal with as an instructor of your classes?

A. Well I never taught any special subjects as for instance to spend a semester or quarter upon municipal utilities. You understand the subject I was teaching was always the general subject in which this would be rather an incidental subject dealt with in the chapter.

Q. Well did you go into the subject at all of rate making as applied to public utilities?

A. Yes, sir.

Q. And what was the field of inquiry along that line?

A. Well very naturally in teaching and treatment of the general subject a single chapter devoted to that subject could not be very extended you understand, and there would generally be in
4370 that chapter a setting forth of rates, some text books would not have this at all you understand and others would, setting forth the rates, perhaps a discussion of the rates as found in some foreign country and perhaps a discussion of the rate as found in this country.

Q. Will you tell us what particular text book that you now have in mind that you used up there that dealt with the subject of rates with the subject of public utilities.

A. Well the two that I have particularly in mind now I believe, I can't think of the names of the authors, were the general treatment of the subject by two men in Columbia University, one of which is

published in the American Science series, but I can't be so very specific as to which text might have these chapters in.

Q. Do you recall how extensive a treatment you found in any text book on that subject?

A. Well they were always brief.

Q. Very brief were they not?

A. Yes, sir.

Q. And very general?

A. Yes, sir.

Q. Did they take up the question as to the rate making power, I mean in what bodies the rate making power was placed?

A. No, sir; I think not.

Q. Did they take up the subject or the method by which an adequate rate was to be ascertained or determined?

A. Well I could not recall absolutely whether any of these particular text books did or did not. I rather imagine that most any of them that discussed that would have at least some little statement of the elements that enter into a rate making.

4371 Q. Of course I want to know you remember, not what you imagine. I presume you are expressing yourself as giving your recollection are you, or are you not?

A. My recollection as to either one of these books that I have in mind is that they did not discuss that particular phase of it at all.

Q. Then as I take it, you did not get much information on the subject of rate making from the studies which you pursued up there at Highland Park College?

A. Well there would be considerable information on certain phrases of it. There would be their deductions as to what would be average rates.

Q. Did you find in any text book that you had there that you can give to us, or authority or any discussion or statement as to what was an average rate of public utilities of any character or tabulation of any data on the subject?

A. Well one of these texts that I speak of Wilcox American city I believe had such statements.

Q. Some statements with reference to what precisely?

A. The rates that are to be found in England and in the United States.

Q. That are charged and received by the various public utilities.

A. Yes, sir.

Q. On what particular public utilities?

A. Well you probably would get more discussion of gas and street car transportation than anything else.

Q. Well did you get in any text book that you can name any discussion of the rates of gas charged in England or rates charged for gas in England and in this country?

4372 A. Well you are asking me a question there that I have not thought of, of course, for a long time, but my recollection is that Wilcox American city does have that kind of a discussion.

Q. Is that one of the text books which you used?

A. One to which I referred.

Q. Used that as a reference work in connection with your studies?

— Yes, sir.

Q. Do you recall when Wilcox on Cities—is that the *title* of it?

A. I think the one I have in mind is Wilcox American City.

Q. Do you remember when that book was first published?

A. Well I think that was published about three or four years ago.

Q. Are you quite sure about that?

A. That is the first that I became familiar with it.

Q. Let me ask you if you have a distinct recollection that that book was published prior to the time that you ceased your duties as instructor at Highland Park.

A. The book I have in mind was published before that time, yes.

Q. Did any of the text books to which you have referred to reference books deal with the subject of the power of the rate making body and what limitations if any there were on that power?

A. No, sir; I think not at that time. Of course Wilcox has gotten out a book more recently that goes quite fully into these matters.

Q. Did any of the text books or reference books to which you referred deal at all with the subject of the method of ascertaining a fair rate of return?

A. Very little.

Q. Did it at all?

A. I think probably not.

Q. Just when was it you began first to try to gather data
4373 with regard to what would be a fair rate of return or just when was it that you first began to gather data on what would be a reasonable rate for gas in the city of Des Moines?

A. You mean specifically with reference to this problem?

Q. Yes.

A. Probably about October.

Q. Of last year?

A. Yes.

Q. Do you know what time in October?

A. No, I could not say. I am speaking in general terms now, I could not say that.

Q. Was it about the time that Mr. MacVicar was appointed a committee together with the legal department by the council to formulate and report an ordinance?

A. Well I suppose in a general way it must have been about that time although I can't remember just when that was.

Q. The record shows here that was the 21st or about the 21st of October.

A. Well that is probably about the time, a little before that time I began making it.

Q. I think you told us that your inquiries consisted in part at least in writing letters to cities for information?

A. Yes, sir.

Q. Do you recall what cities you wrote to?

A. I wrote to Minneapolis, Duluth, Milwaukee, Fort Wayne,

Omaha, Rochester, N. Y., and I suppose a dozen or fifteen other cities.

Q. You have named all that you now recall?

A. Yes, I think so.

Q. You I assume addressed your letters to the mayors of
4374 these particular cities?

A. I don't recall for certain whether I add-essed them to the mayors, in some instances or not. If there was a gas inspector I probably addressed—I rather think I addressed to the Gas Inspector in care of the Mayor.

Q. You got responses to the letters of inquiry that you wrote did you in all cases?

A. Generally so, yes.

Q. Now you have told us, perhaps not in my precise language, but in effect as I understood you, some of those letters were good and helpful and others were not.

A. Well I don't know that I should say that none of them were otherwise than good or helpful.

Q. You preserved the pile of letters I -resume, did you?

A. I am not certain that I did, but I suspect I did.

Q. You think you have that file now and can produce them?

A. I think at least I have some of them.

Q. Do you know whether you have all of them or not?

A. No, I don't really know whether I have all of them, I am not positive that I have any of them.

Q. Will you make a search and see what you can find?

A. Yes, I will be glad to do so.

Q. Then I think you said you advised yourself on the subject under consideration by you, that you noted the correspondence which was published between Mr. Haines and Mr. MacVicar?

A. Yes, sir.

Q. Read all of the letters that were written, at least all that were published carefully as they appeared in the public press.

A. At least I tried to do so, I may have missed some, but my impression is I got all of them.

4375 Q. I think you stated to Mr. Brennan that you found in some letter written by Mr. Haines a statement as to the present value of the gas company's property here in Des Moines did you not?

A. You mean in this testimony this morning?

Q. In your testimony before dinner.

A. I am not certain whether I stated that in the testimony this morning, but I did do that.

Q. Now will you refer to the letter or letters in which you found a statement made by Mr. Haines as to the value of the company's property in Des Moines?

A. I don't know whether I could find that readily or not. I think this is the letter I have in mind right here, that seems to be marked complainant's exhibit No. 7?

Q. Give the date?

A. November 22, 1910.

Mr. BRENNAN: That is contained in defendant's exhibit No. 44

is it not, the letter to which you now refer complainant's Exhibit No. 7?

A. The book is entitled Defendant's Exhibit No. 44, the letter I refer to is No. 7 in this book.

Q. As printed in this book it is the first letter isn't it?

A. Yes, sir.

A. And is under date November 22d?

A. Yes, sir.

Q. Now will you call our attention or will you state into the record what part of that letter you took as a statement from Mr. Haines as to the value of the property?

A. I think here is a paragraph that I presume I probably deduced it from on the second page as printed here in which it states this, \$139,000 as the average net amount received by the gas company for interest and profits which amounts to 8 per cent on \$1,739,094.

Q. In reading that you just read the round numbers of the first figure didn't you?

A. \$139,191.52.

Q. Is that the statement to which you refer as being a statement taken by you from Mr. Haines' letter in which he asserted the value of the property?

A. Perhaps I would not say asserted, but admitted the value of the property.

Q. Would you say he admitted the value of the property?

A. At least that I took it he was admitting the value of the property.

Q. You read the entire letter of course?

A. I certainly did.

Q. And you tell the master now that you gathered from that statement that Mr. Haines was admitting as you put it the value of this property to be \$1,739,094?

A. That is what I took it, yes.

Q. What did you understand the language used in the second paragraph following that, just three or four lines farther down the letter to mean?

A. Well I took it Mr. Haines was making as good an argument as he could for the company and guarding himself against any claim he might want to make in the future and perhaps from an absolute inventory that he might have made later of the property.

Q. As I understand you Mr. Hanna, you read this letter in which Mr. Haines set forth certain figures as revenues derived by the company, gross and net and then followed with a statement after making claimed allowance, giving a figure which he said should be taken for depreciation, arriving at this figure of \$139,000 in round numbers and then his statement that the average annual net amount received by the gas company for interest and profits which amounts to 8 per cent on \$1,739,094 was an admission by him as to the value of the property and which justified you in assuming that that was the company's claim as to the value of the property?

A. You put the question in a way that I hardly know how to

answer with a yes or no, because there were other things that entered into my mind in making up that opinion of mine.

Q. Well did you take that as a statement from Mr. Haines upon which you felt justified in relying and upon which you did rely as to the value of the property?

A. That in connection with the capitalization that I have seen, the statement of the assessor and the assessment that was placed against the property and perhaps some comparisons with other cities.

Q. But what I want to do now is to find out if I can what reliance you placed upon this statement as being a statement from the company as to the value of the property, whether you accepted that as a statement from the company's manager as to the value of this property?

A. If you put that to me directly that way I think I would have to say yes although other factors entered in my mind along with it.

Q. You did that notwithstanding what he does say later and what follows in which he says however I am clearly of the opinion that the present value of the gas plant and the assets is largely in excess of \$1,739,894.

A. Yes, sir.

Q. Is there anything else that you have in mind in the letters written by Mr. Haines and Mr. MacVicar upon which you say you relied at the time you acted with respect to the adoption of this ordinance as giving you any information as to the value of the property than to which you have now called attention.

A. No, I don't have anything else in mind, that is in this correspondence you are asking. No, sir.

Q. Is there anything else in this correspondence?

A. No, sir.

Q. Now you say you knew something about the assessment. Just what about that. I am inquiring what investigation did you make along that line?

A. Well I had been rather familiar with the assessments of these different utilities and the gas company among the rest for three or four years before. I had in mind particularly the assessment that was made in the year before, April before this January and the assessment that was made I think two years before that and a conversation that I just happened to overhear between Mr. Haines and some gentlemen as to that assessment some two or three years before.

Q. You had seen all of the returns made by the company to the assessor had you for these years and did you have in mind at the time just your general information on the subject?

A. Well I had taken up the statements that the company had made to the assessor as well as the value fixed by the assessor upon the plant.

Q. You had examined the returns made by the company had you?

A. I think I had examined the returns made by the company in

the years 1907, possibly 1908 and in the year 1909 as well as the figures that the assessor fixed for the valuation of the property in these years.

4379 Q. Then I take it you did not examine the returns made by the company *by* 1910.

A. I am not positive whether I had the returns *they* *they* made in 1910 or not. I rather think I did but I could not say positively that I did. I should say that we had had some general discussion involving both figures in the equalization board in April preceding.

Q. At the time you were making this investigation that you have told us about you know that an inventory of the property was being taken did you not, being made?

A. I knew that the company were offering such an inventory. I am not positive I knew that they were making such an inventory.

Q. Did you not know that a member of the engineering staff of the city had been detailed to assist in the work of making that inventory?

A. At some time in the stage of the proceedings I knew that, yes, I don't remember just when that came to my knowledge.

Q. Do you remember who it was, the individual it was?

A. Yes, I think I do.

Q. Who was it?

A. Mr. Maxwell.

Q. Did you have any conversations with Mr. Maxwell at any time before the 27th of December with regard to the work he was doing?

A. I think I did.

Q. Did you get any information from him upon which you acted?

A. I got information I suppose from him, I can't recall absolutely now whether from him or not, as to the number of miles of mains and services, connections, etc.

Q. I understand you got from him the information as to the number of miles of mains, number of services, etc.

4380 A. Yes, I think so. I won't be just absolutely positive either, there were negotiations after this date of course and I got some of this information at later times and I could not always tell you whether I got this before the 27th or after, but it is my impression I had these service connections and miles of mains from him before that time.

Q. But you are not sure you got that information before the 27th of December?

A. I am sure I got that information, whether from him or not.

Q. Are you sure you got the information from some source prior to the 27th of December?

A. Yes.

Q. And you got the information that there were how many miles of mains?

A. Somewhere about 182 or 187.

Q. You got the information that there were how many services?

A. Something like 19,000 to 20,000.

Q. You got the information there were how many meters?

A. I don't recall.

Q. Did you get information on that subject?

A. Well I don't recall that I had any information separating the number of meters from the number of service connections.

Q. Did you know there was any difference between the number of meters and number of services?

A. I don't recall that I did.

Q. Do you now know whether there is in fact any difference in number between services and meters?

A. I don't know as to that, I judge a statement as to the number of meters and services—I had a statement as to the number of
4381 meters and number of services, but to state right now whether they corresponded or are different, I can't tell you.

— Do you know enough about the gas business to know whether the number of services are uniform with the number of meters?

A. I would imagine they would be somewhat near the same.

Q. That don't quite answer it, do you know whether they precisely correspond?

A. No, sir.

Q. Don't know whether they did or not?

A. No.

Q. Now among other things you have learned was the duty that devolved upon the council with respect to this matter, is that not true?

A. Certainly.

Q. And what did you understand was the duty of the council.

A. To fix rates and make certain regulations.

Q. And what did you understand to be the duty of the council with respect to fixing rates, what were they to do as you understood it.

A. Well I don't know as I understand anything legally imposed except the moral and legal obligation that the investment, cost of production, depreciation and reasonable price should all enter into such consideration.

Q. You understood then that the council was to inquire into all these several subjects did you not?

A. I would have taken it that was the duty of the councilmen, ye.

Q. You understood also it was the duty of the council to make the rate did you not?

A. Yes, sir.

Q. As distinguished from the individual members of the council.

A. Certainly, if there is a distinguishing mark.

4382 Q. And were you not advised by the legal department at the very time that this ordinance was introduced that it was the duty of the council to fully and fairly investigate the subjects that you have spoken of for the purpose of determining and ascertaining a rate which would be fair to the public and fair to the company.

A. I don't recall any communication from the legal department on that subject.

Q. You don't recall any such communication?

A. No, sir.

Q. Do you recall whether the council in appointing a committee to prepare and report an ordinance appointed anyone other than Mr. MacVicar?

A. Mr. MacVicar as I recall now purely from memory, the resolution provided that Mr. MacVicar and the legal department be directed to prepare an ordinance regulating gas rates.

Q. Do you recall whether there was any report made by Mr. MacVicar or the legal department on the 27th day of December, the day on which the ordinance was presented for the first time to the council?

A. I don't recall that there was anything but the ordinance presented, there may have been.

Q. If there was a communication from the legal department on the subject you don't have any present recollection of it?

A. That is as aside from the ordinance?

Q. Yes, aside from the ordinance.

A. No, sir; aside from the ordinance I don't recall anything else. It is a very common thing to make a report and subjoin a resolution and ordinance and there may have been such a combination here but I don't recall.

4383 Q. But you don't recall anything in the way of an opinion or advice from the legal department which was submitted on that occasion setting among other things the duty of the council?

A. No, sir.

Q. But as I understand it you did understand that it was your duty among other things to ascertain the value of the property of the Des Moines Gas Company which was used and useful in the business of manufacturing gas in the city of Des Moines, you understood that didn't you?

A. I understood this too as part of it that it was our duty to find out as nearly as we could what would be a just rate and it would be in a large measure necessary to do that in order to get at a just rate.

Q. Would it be absolutely necessary to do that in order to get at a just rate didn't you understand?

A. No, I would hardly say that.

Q. Do you know of any way you could determine what was a just rate without determining upon what the rate was to be based?

A. Yes, certainly.

Q. I am not speaking of rate of return, but what it would be.

A. Yes.

Q. What was it?

A. If I knew of a city of somewhat similar conditions producing gas at a certain rate I would assume conditions to be like in our city, and we ought to be able to get about the same rate.

Q. Then you concede it to be your duty to simply ascertain what rates were being paid by some other city under somewhat similar conditions?

A. I didn't say that.

Q. That was not what you said.

4384 A. No, sir.

Q. What did you say?

A. I said that would be one way of doing it without getting absolutely at the valuation of the property, but would concede also it was a good thing to get the valuation of the property.

Q. Didn't you concede it to be your duty to ascertain the value of the property here in Des Moines before passing an ordinance fixing a rate?

A. Yes one of the duties.

Q. And now what you did in the discharge of that duty as I gather from your testimony was to read a letter or letters, the letter which Mr. Haines wrote to Mr. MacVicar and to look over the assessments of the property for prior years.

A. That is so far as a means of getting at valuation?

A. Yes.

A. Largely so, perhaps also making comparisons with other cities.

Q. Well, how did the comparisons with other cities enable you to determine the value of the property in Des Moines?

A. If I found another city that was making gas of somewhat the same—in a plant of somewhat the same size delivering that gas to about the same number of people per mile, I assume I had a basis for comparison.

Q. You see you are getting away from the question now aren't you. We are talking about how you ascertained what was the value of the property in Des Moines. You said you did that to a certain extent you did by comparison.

A. I would ascertain the value of the property of any city. I didn't take an inventory of any property to get an appraisal of the items or anything of that kind, but I did compare capitalization and did compare miles of mains, services, service connections and
4385 things of that kind.

Q. Have you in mind any city in which you ascertained in any way the value of the property of the company that was operating the plant in that particular city?

A. I don't think that I could name values as I found them, but I did make make comparisons for instance with Minneapolis.

Q. Did you ascertain the value of the company's property in Minneapolis?

A. I ascertained the valuation that the company had put upon its property by way of capitalization, bond issue, etc., just the same as I did here.

Q. Now did you take that valuation in fixing the valuation in fixing the valuation of the property in Des Moines?

A. In a measure.

Q. What did you ascertain the value of the gas property in Minneapolis to be?

A. I can't recall.

Q. You don't recall what the valuation upon the company's property was that you ascertained in Minneapolis?

A. No.

Q. Do you remember any other city in which you found out the value of the property which the company in a particular city and which it was using in the manufacture of gas?

A. I don't think I could recall at this moment, no sir.

Q. Aside from what you have told us as to the number of miles of mains and the number of meters or services rather, did you know what the company's property consisted of in Des Moines at the time you passed this ordinance?

A. Well I suppose hardly in a minute sense, no sir, in a detailed way, I knew about the plant in a general way and the distribution system in a general way.

Q. What do you mean by general way, just what came from the common observation, what anybody living in Des Moines would obtain from common observation?

A. What anybody who was giving some attention to the subject, and remembering also that it was a plant designed to deliver gas to a city of 80,000 or 90,000 people.

Q. You had had no experience of course in what sort of a plant was necessary nor the value of the plant that was necessary to furnish gas to a city of the size you have mentioned, did you. You had had no practical experience in that matter?

A. Certain- I had not.

Q. Now would you say that you had then at the time you passed this ordinance any other information as to the value of this property than what you have now stated?

A. I thought that I had and I say now that I had.

Q. Tell us what it was. Confine the answer to the value of the property and not the value of the property some other place, but the value of the property here in Des Moines if you have any information as to the value of this property other than what you have now stated?

A. I had—if you will allow me to go over details, seems to me that is the best way I can answer the question.

Q. If you will confine your answer to the subject.

A. I had the distribution system and number of miles of main, I had the service giving the number by deduction, the number of consumers or connections per mile and I had the statements of the company to the assessor for several years, I had the assessor's valuation for several years, I had the comparisons between this city and the plant delivering gas in this city and many other cities.

4387 Q. I didn't mean to have you reiterate what you had already said, but asked you if you had any information aside from that.

A. Outside of this knowledge of the material property that I have stated and statements to the assessor and comparisons between this and other cities I did not.

Q. You did not know how much ground, how much land was owned and used by the company in the manufacture of gas did you at that time?

A. No, sir.

Q. And you didn't know the value of it did you?

A. No, sir.

Q. You didn't know how much machinery they had nor the value of it did you?

A. No, sir.

Q. You didn't know how many buildings they had nor the value of them did you?

A. No, sir; except the knowledge that I felt to be sufficient of the total valuation of the plant.

Q. Such as you have given us that you had?

A. Yes.

Q. While you knew the number of miles of mains you didn't know what it would cost to lay these mains per mile or relay them did you?

A. Well I knew a little something about such questions as that yes.

Q. You did then?

A. Yes.

Q. A little something about it?

A. Yes.

Q. You never had laid any mains of course?

A. Never had laid any mains.

4388 Q. You never had bought any gas pipe?

A. Never.

Q. The session of the council at which this ordinance was passed extended from somewhere between nine and ten o'clock in the fore noon until, we have learned in this case that is correct is it?

A. I think so.

Q. We have also learned that there was some eighteen or twenty matters of more or less public importance that was transacted by the council during that session?

A. I don't recall, but I would suppose so.

Q. Can you give us any idea in minutes the length of time the council took with the consideration of this ordinance from the time it was presented and reported upon until it was put upon its final passage?

A. I suspect it was done within a half an hour.

Q. That would be an outside estimate wouldn't it?

A. Well I expect that would be about right perhaps.

Q. You said something about having gathered together in some form some data that you had on your desk while this ordinance was under consideration?

A. Yes, sir.

Q. I think you said you did not lay that before the council but that in remarks you made on the subject of the ordinance you made some reference to it?

A. Yes, that is my recollection.

Q. Have you that data?

A. Yes, I think so.

Q. You can produce it can you?

A. Yes, sir.

Q. Will you do so?

4389 Q. Will you do so?

A. Yes, sir.

Q. Did you give the council the full benefit of that data, that is did you read it all to them or present it all to them or did you simply refer to something in the data that you had that you thought might be—

A. I didn't make any formal reading of it no sir.

Q. It was in written form of course, do you remember how many sheets it covered?

A. It was just a little tabulation from some of the letters I have received including about the cities that I named awhile ago.

Q. Isn't it true that that consisted of some information as to the prices at which gas was being sold in other cities?

A. No, sir.

Q. Contained further information did it?

A. Yes, sir. Contained the tabulations of the answers to several of those questions?

Q. Now while that meeting was going on, you suggested to the council the propriety of taking further time to investigate before action didn't you?

A. If I just had to answer that question no or yes, I suspect I would have to say no, but I did make some protests against passing it at once.

Q. And why did you make that protest?

A. For two or three reasons.

Q. Was one of those reasons that you thought the council were not in possession of the information that they ought to have to enable them to act intelligently upon the subject?

A. I don't think that was so much my thought as that I
4390 had known that negotiations had been gone through with for some time and that this seemed like a precipitation of trouble and that I hoped that some further consideration with perhaps a hearing a discussion between Mr. Haines and the council might result in fixing the matter up without trouble.

Q. But one of the thoughts that you had in mind and that was prominent in your mind was that the council had not as a council the information that it ought to have in order to perform the duty which rested upon it, is that not true?

A. I knew at least that we had not had that material before the council discussed.

Q. So far as you knew outside of Mr. MacVicar who had been appointed as committee to collaborate with the legal department and formulate and report an ordinance and such investigation as you had made, so far as you knew the other members of the council had made no investigation, is that not true?

A. So far as I knew positively they had made no investigation.

Q. You said this forenoon that you have talked very little to the other members of the council at any time prior to the passage of this ordinance?

A. I don't think I have talked to any mem-ers of the council about this ordinance except some to Mr. MacVicar.

Q. By this ordinance you mean the subject, of course the ordinance was only introduced that morning, but you mean the subject of what would be a fair rate?

A. Yes, and regulations.

Q. In going into the subject of ascertaining what sort of an ordinance you ought to pass, what sort of a rate you ought to fix you started did you not with the assumption that the rates should
4391 be decreased, that the new ordinance should fix a rate that was lower than the existing ordinance, is that not true?

A. If I were to answer that question absolutely by itself I would have to say yes, but I would have to qualify it by saying that was not the beginning of my investigation of the subject.

Q. When you first began to investigate which was about the 21st of October you started out with the thought in mind did you not that the new ordinance which was to take effect after the the first of January that year should decrease the rate.

A. Yes, I had that in mind by October that there ought to be a decrease in the rate.

Q. That is the time you have told us you began to investigate the subject?

A. No, not the subject, but the subject with reference to rates in Des Moines.

Q. So I am right in understanding from you am I not that when you began to investigate the subject with reference to fixing the rate in Des Moines you started with the thought prominent in your mind that the present rate must be decreased?

A. Yes, considering other cities I had thought we ought to have a little better rate?

Q. The thought never occurred to you that by any possibility should there be any increase?

A. Well I think I would always be willing to consider that there—be necessary because of different conditions in the prices even to be large in Des Moines than some other city, yes.

Q. The question is when you started to make this investigation you have said that you started with the idea that the present rate, the then present rate was too high and that the ordinance the new
4392 ordinance should decrease that rate. Now I was putting it the other way, the thought was never present in your mind for a moment that the new ordinance ought to fix a higher rate.

A. I don't think I had anything, any evidence before me make me think that, no sir.

Q. The fact remains you never considered there would be any possibility of an increase in rate, that is correct is it not?

A. I suppose that is probably true.

Q. And isn't it also true that the thought never entered your mind at the time you began to investigate that there was no possibility of reaching a conclusion that the present rate ought to continue?

A. I don't think that would be, no sir.

Q. Now with respect to the investigation which you made by correspondence and otherwise and by the visit you made to Minneapolis wasn't your attention specially attracted to the inquiry as to the candle power of gas and as a practical proposition what the candle power of gas should be, what the ordinance should require in that respect.

A. Yes, I had some time previously gone into the question of candle power and standardization of gas based upon candle power or upon heat units, a considerable time before this.

Q. You reached the conclusion didn't you that an 18 candle power for all practical purposes was as good for the consumer as a candle power of 22 or some higher candle power, that was the net result of your investigation wasn't it?

A. No, the net result of my investigation was that a heat unit standard was a better standard, both for the company and the people.

Q. He will get to that in a moment. I want to confine the inquiry now to the candle power proposition. I will ask you again
4393 whether after your investigation, particularly at Minneapolis you did not reach the conclusion that for all practical purposes an 18 candle power in Des Moines, gas of 18 candle power was as good as a higher candle power?

A. For lighting purposes, my investigation of both Wisconsin and the public utilities commission up there and their experience all over the state and the investigation in Minnesota was that for practical lighting purposes 18 candle power would be of almost as good value for the public as 22 candle power.

Q. You had investigated the subject sufficiently to satisfy you that in the manufacture of gas the lower the candle power the less the cost to make or manufacture hadn't you?

A. Somewhat, yes.

Q. And with that knowledge before you you still reached the conclusion that this ordinance should provide for the candle power specified in the ordinance?

A. No, sir.

Q. Now then qualify that.

A. That was one of the points of discussion the morning the ordinance passed, was one of the points I raised myself in the consideration of the ordinance that the heat unit would be better all the way around than the candle power unit of standardization and it was urged that that could be taken up afterwards in a separate ordinance and that it was only a day or two before the old ordinance rate would expire and we had better pass this ordinance at once for that reason and then we could adjust that a few days later.

Q. You, as I understand it, then was urging that the ordinance contained the requirement that the candle power should be something less than that which was in the ordinance.

4394 A. Might be something else, yes.

Q. But you were overruled as to that?

A. Yes.

Q. You also made a pretty thorough investigation did you not and

wasn't the investigation you made largely devoted to this question of heat units?

A. Well I don't think you should say largely no. I had inquired pretty carefully into that subject.

Q. And after full investigation you came to the conclusion that the heat units as specified in the ordinance was the right thing didn't you?

A. Was a better basis for the standardization for gas——

Q. I didn't ask you that. You came to the conclusion that the heat unit standardization was better than candle power?

A. For everybody concerned, the company and the city, yes.

Q. On the question of rate of return I think you told us that some time was spent by you in determining what was a fair rate of return, that is after you had got the value of the property upon which the return was to be received and after you had determined what net rate might be received under a given ordinance you gave consideration to the subject as to what that rate of return should be, what would be a fair rate of return?

A. Yes, I always had that in mind as one of the things that ought to be considered.

Q. I think you told us this forenoon you gave some thought and study as to that question as to what is a fair rate of return.

A. Yes, sir.

Q. And what conclusion did you arrive at as to what would be here in Des Moines a fair rate of return?

A. Well I think my own opinion on that has always been 4395 a little different from your scientific way of getting at it, I have always felt as though since most companies were organized on a basis of the capital stock and the bond issue that among the cost of operation should be included the interest on the bonds and then such a rate as would make with fair management perhaps eight per cent on the capital stock and with better management what might be called wages of management rather than profit if you please, ten to twelve or fifteen per cent or any other per cent good management could produce.

Q. Then if I understand you it was your thought and your idea that a rate should be fixed by the ordinance which would give to the company a rate of return of not less than eight per cent and under very good management ten or 12 per cent, is that correct?

A. Under fair management 8 per cent. Under superior higher rates giving a *ded* profit for expert management.

COURT: You say capital stock there. Do you mean the actual capital stock or that which was fully paid up?

A. I mean what should be actually paid up capital, legitimate capital as part of the legitimate investment.

Q. We learn from the public press referring now particularly to the Tribune published under date of February 21, 1911, and the Register and Leader published under the same date that Prof. Wm. L. Marks of New York had sent a report to you in answer to a letter which you had written him from which both these articles purport

to quote. Have you that letter, have you the letter to Prof. Marks and his letter to you on the subject.

Objected to as incompetent, irrelevant and immaterial and for the further reason that it relates to a time subsequent to the commencement of this action, unless you want to go into the question there of negotiations that were had between the parties, immaterial and not cross examination?

A. I am quite positive that I have at least a copy of my letter and Mr. Marks' letter to me if I have in mind what that refers to.

Q. To refresh your recollection I will call your attention to these articles in the public press that I refer to. Having refreshed your recollection by an examination of these articles in the press to which I refer, can you now tell us whether you have a copy of your letter to Prof. Marks and his answer thereto which is referred to in these articles?

A. I have a copy of my letter and his letter that I think were no doubt here referred to under this date.

Q. Will you produce the correspondence, that is the copy of your letter to Prof. Marks and his letter to you. I presume you haven't them with you here?

A. I can do so.

Q. Will you get them and produce them.

A. Yes, sir.

Judge CARR: That is until he gets these letters. The letters referred to are your letter to Prof. Marks and his reply to that letter which is referred to in these publications to which your attention has been called which contain or purport to contain quotations from Prof. Marks to you. I want also the report or memoranda you had before the council and also the letters or such of them as you have that you received from various persons to whom you wrote when you were writing conditions in other towns in respect to the rates that were being charged?

4397 Redirect examination by R. O. BRENNAN, Esq.:

Q. You have at this time as I understand it some of the data which you had in your possession at the time the council met at the time of the introduction and passage of the ordinance?

A. Yes, sir.

Q. So that you can produce that now as requested by counsel?

A. Yes.

Q. You might as well produce it if you have it or you may bring it all in at one time. Now your attention was called to some personal objections which you had in mind to the ordinance. I want to ask you Mr. Mayor, if you had any question in your mind at the time of the adoption of the ordinance with respect to the reasonableness of the rate which was fixed in that ordinance.

Objected to as not proper redirect examination and simply calling for a self serving declaration, therefore incompetent.

A. No, sir.

Q. Did you make that statement to the members of the council.

A. I did.

Q. Now as I understand it, aside from the comparisons which you made with other cities, from the information and data which you received through the correspondence and investigations that you made, you refer to some returns made by the company to the assessor?

A. Yes, sir.

Q. Mr. C. W. Schramm is one of the members of the city council?

A. Yes, sir.

Q. And was the former assessor of the city was he not?

A. He was assessor of the city at the time I first made an investigation of this question. I got my first figures from him.

Q. I show you what is known in this case as defendant's exhibit No. 1 which purports to be the statement of the Des Moines Gas Company to the assessor made in the month of February and in the month of March 1908 and endorsed upon this exhibit is the verified statement of Mr. Jansen Haines and I wish you would examine that and tell the Master if that is one of the statements to which you referred in your answer to one of the questions put to you by Judge Carr?

A. The best answer I can make to this is that in about February or March, early March, *pr* probably in the latter part of February 1908 I went into Mr. Schramm's office and got the data on the gas company, both their statement and the figures that the assessor was assessing the properties and I assume that this is one of the ones that I got at that time.

Q. At any rate you will say now and it is your recollection is it Mr. Schramm as early as the year 1908 furnished you some information with respect to the gas company.

A. Yes, sir.

Q. Now I notice in another letter written by Mr. Jansen Haines to Mr. MacVicar that substantially the same figures are referred to as in the first letter which you refer to in your testimony and I call your attention to the letter under date of November 26 1910, referred to in defendant's exhibit No. 44, and which is in the evidence in this case as complainant's exhibit No. 9, and you may tell the Master whether or not you read that letter in connection with the correspondence and if you regarded the statement therein made as a confirmation of the statement made by Mr. Haines in the former letter to which you refer?

A. My recollection is that I read this letter and assumed in a general way that it confirmed the figures that I had in my mind.

Q. Defendant's Exhibit No. 44 is in pamphlet form is it not?

A. Yes, sir.

Q. And purports to contain, among other things, the correspondence between Mr. Haines and Mr. MacVicar bearing upon the gas question in Des Moines and purporting to have been written in the fall and early winter of 1910. Now do you know whether Exhibit

44 was distributed or caused to be distributed by anyone in the city of Des Moines?

A. I know that I received a copy of it myself and had an understanding that it was quite generally distributed.

Q. And from what source did you receive your copy?

A. I suppose I received it from the gas company.

Q. How was it delivered to you?

A. By mail.

Q. Did you receive it in due course of mail.

A. It was at my house when I returned one evening.

Q. You may state if at any time any of the officers or agents of the Des Moines Gas Co., represented to you or stated to you that in order to earn a reasonable return upon their investment that it would be necessary to raise the rates for gas in the city of Des Moines?

A. Not that I recall at any time. Certainly not before December 27th.

Q. Then if I understand you correctly your consideration of the letter to which you have called attention under date of November 22d, you believed that would be the rate of return which the company would be willing to accept and receive upon that investment.

A. Yes, I took it that was what they proposed.

Q. And that they would be satisfied with a return of \$139,-
4400 000 in round numbers as the net earnings from the business, take the letter of November 22, 1910?

A. Yes, sir.

Q. I think you refer to a conversation between Mr. Haines and someone else which you overheard or at which you were present.

A. Yes, sir.

Q. Was that in relation to the valuation of the property of the Des Moines Gas Co.?

A. With relation to the valuation with reference to the assessment some four or five years ago.

Q. Some four or five years ago?

A. Yes, sir.

Q. That would be about 1906 or 1907?

A. I think so.

Q. Do you recall now the substance of the conversation?

A. Yes, sir.

Q. Did Mr. Haines have anything to say as to the valuation of the property of the Des Moines Gas Company at that time?

Objected to as incompetent as not being a *testament* that would be statement made by Mr. Haines would be in any wise binding upon the company in any way, made long ago and therefore wholly immaterial.

A. Yes, sir.

Q. Now I want you to tell the Master what Mr. Haines said on that subject.

Objected to as immaterial and incompetent, not showing that any in any wise binding upon the defendant and as immaterial having been made years before the inquiry which is now material.

A. The conversation was concerning the assessment that
4401 wa- placed against the property for that year. Mr. Haines
was protesting to some gentlemen that he increase as I recall
it, the increase in the assessment was entirely unjustifiable.

Q. Do you remember what the assessment was at that time?

A. No, sir; I do not. My recollection is that there had been quite
a little increase in the assessment and Mr. Haines was protesting very
vigorously against that increase.

Q. Now you had made some study of thermal values of gas as
manufactured and sold in different cities?

A. Yes.

Q. And especially the experience which they had in Minneapolis?

A. Minneapolis and Milwaukee.

Q. And it was your personal view of the matter that it would have
been well for the council to have incorporated in the ordinance which
had for its purpose the fixing of the rates for gas a provision regu-
lating the heat units of the gas to be furnished.

Objected to as leading as is practically every question which coun-
sel puts to the witness.

Q. I want you to tell the Master just what your personal views
were with respect to the subject of heat units of the gas which you
had in mind at the time of the discussion of this ordinance.

A. My thought was it was very much more in accordance with
modern methods of standardizing to fix upon heat units as a basis
because light units since the introduction of mantles was less im-
portant, if you have heat units you could get the light unit with the
mantle and a far larger amount of gas, perhaps 90 or 95 per cent of
gas consumed would have its value altogether based on heat units,
perhaps 90 to 95 per cent of the gas consumed in a city like ours
would have its value places almost entirely on its heat units
4402 instead of light units. Furthermore I had that in mind as
a means or basis of some concession to the company to give
the company and save trouble.

Q. But the views which you had upon the general subject were
not opposed as I understand you to the rate which was prescribed
to the ordinance?

A. No, sir.

Q. Did you make your views known to the members of the coun-
cil as to the rate?

A. Yes, I brought that out very distinct. I had to do that be-
cause of the fact that I was protesting against the passage of the
ordinance there, the provisions of which in the main I was abso-
lutely in favor of, the rate in particular, because that was the main
thing that was set forth in it, outside of the candle power as a
standard and while objecting to hurrying the ordinance through
because it precluded the possibility of a settlement, etc., I wanted
to make it clear that I had gone into the question of rates and felt
that to be just.

Recross-examination by Hon. GEORGE H. CARR:

Q. Because it precluded the possibility of settlement, etc. You mean to include in that just what you said before that it precluded just such investigation as you felt ought to be made before an ordinance was passed, isn't that true?

A. Possibly in a measure.

Q. You can answer that by yes or no can't you?

A. In a measure only. I would like to make the matter so clear to the court here—

COURT: I understand what you mean. You thought it would be better to do that than to—

4403 A. Precipitate a law suit.

Mr. BRENNAN: I want to ask you this question whether the standard which had in mind incorporating in the ordinance, whether that standard was suggested to you by any one connected with the Des Moines Gas Co.?

A. No, sir.

Mr. BRENNAN: If I understand you correctly your thought was that by suggesting a reduction in candle power you might agree upon — standard with the company as to the heat units or value to be used?

A. To be specific I thought to substitute 600 British Therman units for 22 candle power as the main standard, the standard to provide a minimum of 17 or 18 candle power below which the company should not go.

Judge CARR: You say you got confirmation of the impression which you told us you received after reading the letter of November *wed* in Mr. Haines' letter to Mr. MacVicar of November 26th. That is correct is it?

A. Yes, sir.

Q. What language do you find in the letter of November 26th that confirmed the impression that you had received prior to that?

A. In the first paragraph Mr. Haines speaks of these same figures and then goes on to guard against that being accepted.

Q. Perhaps it would be the better way to read into the record the language which you say confirmed your prior understanding of what Mr. Haines had said?

A. The latter part of the first sentence reading also computation showing this amount of net revenue would yield but 8 per cent upon \$1,739,894.

Q. Did you stop there?

4404 A. You mean did I stop reading there?

Q. When you were looking after confirmation of the pre-conceived notion which you say you had, did you stop reading there at that point or did you read the balance of the letter?

A. I don't think I was seeking confirmation particularly, I was trying to get a general impression of facts.

Q. I am asking what the fact was, whether you stopped reading at that point or read the next sentence?

A. I read the letter.

Q. Please read into the record the next sentence?

A. I express the opinion that the present value of the plant and assets of the company *was* largely in excess of that sum.

Q. You say that some several years ago you recall hearing Mr. Haines talk to somebody protesting about the assessment of the gas company's property being raised, that is correct is it?

A. Yes, sir.

Q. Do you remember who it was he was talking to?

A. No, I don't believe I do.

Q. Do you remember where it was?

A. I do.

Q. Where?

A. It was in the lobby or going up the steps of the Savery Hotel.

Q. Was he walking along?

A. He was walking along with one or two gentlemen and I was walking along, just happened to be going in at the same time.

Q. Would you undertake to state just what Mr. Haines said, do you remember the words he used?

A. No, I don't think I could reproduce his words.

Q. To refresh your recollection was it some person connected with some of the public utilities in Des Moines, Charles 4405 Denman for example or George Hippee?

A. It is not my impression that it was, no sir.

Q. Of course during the last four or five years you have heard a good many people complain about their taxes haven't you?

A. Yes, sir.

Q. Still you remember this particular conversation and where it occurred?

A. Yes, sir.

Q. But don't remember who Mr. Haines was talking to?

A. No, sir; not positively.

Q. Was it the substance of what Haines said in the nature of a protest against the valuation put upon the gas company's property in comparison with the valuation that had been put on other property and particularly on other public utilities? Wasn't that what he was complaining of that the gas company had been assessed relatively higher than some — utility or some other class of property? When I suggest that don't that bring it back to you that was the nature of the conversation or statement from Mr. Haines?

A. I think there was some part of what you said would form perhaps a part of his observation, that is he perhaps said something about the relative increase in his property and other property or the value of other property—no I don't think the increase on the assessment on other properties and protesting that the valuation of his property was unjust as compared with the valuation of city property in general and not with reference to public utilities, at least I didn't get any such thing.

Q. Of course I assume you didn't hear all the conversation?

A. No, sir.

Q. Didn't get much of it, got a few words walking along?

4406 A. There probably was something before what I heard.

Q. It is perfectly fair isn't it to assume what you heard

might have given you an entirely wrong impression of what Mr. Haines was saying if you had heard all he said on that subject, that is true isn't it?

A. I think not because the remarks Mr. Haines was making seemed to be summing up his conversation, his whole position.

Q. Then you only heard the summary of what he said apparently?

A. I heard some of the conversation, including the summary.

Q. You would not want to be understood as saying you heard enough of the conversation to recall after the lapse of years just exactly the idea that Mr. Haines meant to convey would you just from overhearing some things that he said as you walked along together?

A. I got a very distinct impression because as I recall now of some animated discussion there had been about assessments and immediately upon the heels of that hearing Mr. Haines sum up the situation with reference to his company.

Q. Now wasn't the discussion between these people a discussion as to the relative assessments that had been made upon property that was being brought into comparison and wasn't Mr. Haines contending that the gas company's property had been assessed relatively higher than some other properties and wasn't the person with whom he was talking taking an opposite view and insisting that the gas company's property was not assessed relatively any higher than other properties that were being compared? Isn't that the scope of the discussion which you heard?

A. I don't think so. I think that the conversation was along the same lines—I don't think there was any particular protest on the part of the other party and I think that the question of
4407 relative values did come in, but was only a part of Mr. Haines' protest.

Q. At the risk of getting this in twice I want to ask Mr. Hanna who is the present assessor in Des Moines?

A. Mr. James Parker.

Q. Who was assessor last year?

A. Mr. Parker.

Q. And who the year before?

A. Mr. Parker would certainly have been assessor the year before that.

Q. Who the year before that?

A. Mr. Parker I think.

Q. So in speaking of Mr. Schramm as assessor you go back several year-?

A. Yes, since the beginning of the Des Moines plan. Mr. Schramm came in from the assessor's office into the city council.

Q. The beginning of the Des Moines plan—was—

A. Three and one half years ago.

Q. It was some time prior to that Mr. Schramm was assessor?

A. Three and a half years ago he was assessor.

Q. You think he was assessor up to the time he went on the city Council.

A. I think so.

Redirect examination by R. O. BRENNAN, Esq.:

Q. Referring to the letter of November 26, 1910 a portion of which you have read into the record, I will ask you if you analyzed in connection with your investigation the language which follows the figures which you have read into the record, namely \$1,730,894 the following, I express the opinion that the present value of the plant and assets of the company was largely in excess of this sum?

A. Yes, sir.

Q. So that the letter when he expressed his opinion as to the value of the plant did not limit it to the plant, but included the assets as well.

A. Yes, sir.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

4408

Saturday Forenoon Session.

SEPTEMBER 30, 1911—At 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JANSEN HAINES, re-called for further direct examination, examined by Hon. H. W. Byers, testified:

Q. Mr. Haines, you have looked up the items that you were asked to examine some days ago covering the items of credit on the books of the Des Moines Gas Company in favor of the United Gas Improvement Company?

A. Yes, sir.

Q. The first item I wish to inquire about is the item under date February 28, 1907, of amount \$2,365.13. Will you please state what is covered by that item?

A. Well, now, I have checked that item with the sheet which was prepared by Mr. Sangster and attached to the sheet that you have there.

Q. Just give me first what that item covers under date February 28, 1907?

A. That item is made up on the first page of Mr. Sangster's sheet and is made up of a number of items which are referred to on the next to the last sheet under the heading, "year ended 2-28-07".

Q. Next to the last sheet of what?

A. Of those three sheets you handed me yesterday.

Q. That is not what I wanted to know; I want to know from you what the item covers?

A. I am just getting to that. He has that item distributed under a number of heads in the column headed "Year ended 2-28-07" on a sheet which he has named United Gas Improvement Company analyzed ledger account by years from February 1, 1906, to December 1, 1910. I find that he has not made an analysis of the account, but simply made a summary of some items entering into it. He has used in making up that summary

a different classification, an arbitrary classification of his own which does not correspond to the classification which we used, and therefore it was impossible to make a correct comparison between the two without reclassifying his items according to our own books, and I have prepared an analysis of this account according to the correct classification of our books.

Q. I have not asked you for that at all. I simply asked you to tell me in a general way what is covered by this item of \$2,365.13. I want to know whether it is credited for services or whether it is credited for interest or whether it is credited for salaries or what it is.

A. The items covered by it are purely arbitrary items which he has taken according to the classification——

Q. I have not asked you that.

A. You will have to have Mr. Sangster analyze that account before a correct comparison can be made of the account. Now, Mr. Byers, some of these items I can reconcile according to our classification.

Q. I just simply want to know what is covered by that item. You can answer that without any explanation.

A. Mr. Sangster covers in that item, manufacturing, distribution, organization, expenses——

Q. That is where it is charged to. That is not what I am asking you about. Go on with your answer.

A. Office expenses——

Q. Wait a minute. You will have plenty of opportunity
4410 to answer it that is not what I am asking about now. All

I want to know now, Mr. Haines, from you, and I have no objection to your putting, when you get through, any explanation you want in there or any other classification. All I want to know in this question, what is covered by that item of \$2,365.13.

A. I was just telling you, General.

Q. You was telling me how it is charged on the books. I don't want to know how Sangster has analyzed it.

A. I am just giving it to you.

Judge CARR: I suggest, Mr. Haines, that you go on and answer the question.

A. The items are all covered in Mr. Sangster's classification as manufacturing, distribution, organization expenses, office expenses, general expenses, works expenses, distribution office expenses, store room expenses, appliance demonstration expenses, soliciting expenses, accident and damage, advance insurance, and advertising.

Q. Are you through now?

The MASTER: If you will give the amount of each, you will answer his question.

A. Under the head of manufacturing, \$16.08; distribution \$16.08; organization expenses \$993.52; office expenses \$882.72; general expenses \$161.52; works expenses \$132.85; distribution office expenses \$48.82; store room expenses \$13.51; soliciting expenses .65 cents; accident and damage \$9.38; advanced insurance \$90 total \$2,365.13, according to the item you asked for.

Q. Well, now is that all the answer you have to make now?

A. That is with what I have already said.

Q. What does the manufacturing \$16.08 represent?

4411 A. The manufacturing \$16.08 was the traveling expenses of Rollin Norris, in connection with the inspection of the works during that year.

Q. Who is Rollin Norris?

A. He is superintendent of works.

Q. How does that come to be credited to the U. G. I.?

A. Because the U. G. I. advanced the money for his expenses.

Q. You charged \$16.08 of it to manufacturing?

A. There was a total charge to the Des Moines Gas Company of \$32.16 and that was divided, one-half was charged to manufacturing and one-half to distribution in the classification of our accounts.

Q. Who do you say Mr. Norris was at that time?

A. Superintendent of works.

Q. Of what works?

A. Of the various works that the U. G. I. was interested in.

Q. Where does he live?

A. He lives in Philadelphia.

Q. And what is his relation to the Des Moines Gas Company?

A. He has no relation to the Des Moines Gas Company except when he is called in consultation.

Q. Now, Mr. Reporter, I wish you would read the last answer.

(Last answer read.)

Q. What do you mean by called in consultation?

A. He is called in consultation about the engineering and operation of the plant, but when he is called in consultation no charge is made for his time, but only for the traveling expenses incurred in connection with his work.

Q. Who does he represent when he is called in conference here?

A. He is the representative of the engineering staff of the United Gas Improvement Company.

4412 Q. You just divided that charge and charged \$16.08 to manufacturing and the other half to distribution?

A. Yes.

Q. That accounts for those two items of \$32.18?

A. Yes, that is according to our classification.

Q. That covers Mr. Norris' traveling expenses to come out here to Des Moines?

A. It covers a portion of them; undoubtedly at that time he was visiting other plants and in making his circle only a portion of his expenses were charged to this plant.

Q. So he visited other plants, is that the way you understand it?

A. That is the way I understand it.

Q. He stopped here on one of his trips?

A. On one of his trips.

Q. The United Gas Improvement Company divided up his expense when he got back and sent you a statement of what should go on the books here?

A. Sent me a bill for his expenses.

Q. That is the way the item got on your book?

A. Yes.

Q. You had nothing to do with it here except to take the direction that came from U. G. I.?

A. That is not exactly correct; it came in the form of a bill from the U. G. I.

Q. What do you mean by in the form of a bill; wasn't it paid by the treasurer there in Philadelphia?

A. You mean paid by the treasurer of the Des Moines Gas Company?

Q. I don't care whether you call him treasurer of the Des Moines Gas Company or treasurer of the U. G. I.

A. He is treasurer of the two companies.

4413 Q. This item was settled in Philadelphia?

A. No; it simply came as a bill, the same as it would come from any concern furnishing labor or material.

Q. All the Des Moines Gas Company had to do with it here was to make the entries on the books?

A. Certainly.

Q. There was no bill paid here?

A. At that time, in 1907, that bill was paid in Philadelphia——

Q. All you know about it, the bill came here with directions to make the proper entries on the books?

A. The bill was paid in Philadelphia, and the bill was sent out to us, or sent out to me to be placed on our books as giving credit for that amount so paid to the United Gas Improvement Company.

Q. Well, I understand from that whenever the United Gas Improvement Company, which owns all the stock of the Des Moines Gas Company, sends out any of its representatives to look over the property, the expense of the trip is charged to operating expenses here, is that your understanding of it?

A. It is charged in accordance with the classification, which would depend on the character of the work for which they were sent out, but they do not send men out here as a gratuity.

Q. What did his trip have to do with the manufacturing institution here?

A. General, it is just exactly owing to what he did when he was here. He comes out at intervals to inspect the operation, to prepare and discuss the features of the operation from an engineering standpoint, and to discuss with me the contemplated improvements, the question of location of apparatus, and to keep himself familiar with the details of the plant, so that when correspondence

4414 is had between myself and the engineering staff of the United Gas Improvement Company, he can intelligently make out his report of the situation here to the officers who are there.

Q. How often does he come?

A. He does not come out at any particular stated intervals, but generally when there is something of importance under discussion

relative to the construction or operation of the plant. I think it will be safe to say he comes about once a year, or possibly twice a year, depending somewhat on the local conditions and necessities.

Q. Whenever he does come that portion of his expense is taxed here?

A. Only his traveling expenses, not his time; there is no charge made for his time.

Q. And in respect to that a check or draft is sent here from Philadelphia; that is, an authorization or direction as to what entry to make on the books?

A. The same as I would for anyone who renders services and sends a bill for it.

Q. Who directs the accounts to which that item shall be charged, is that done from Philadelphia?

A. Yes, usually done from Philadelphia, because the man who is on the work himself and turns in his expenses would classify the proportion in accordance to what he thought was a fair proportion of the time which he devoted to his work here.

Q. In sending the account or statement here do they include in that statement the total expense of his several trips, so that you know just what proportion to get?

A. No.

Q. You have no way of knowing about that?

A. He makes out his expense account to the United Gas
4415 Improvement Company and classifies that expense account as to what proportion should be correctly charged in proportion to his time spent at these different properties.

Q. You don't see that?

A. No.

Q. That don't appear on your books anywhere?

A. Not at all.

Q. So that whatever they want to charge, they make the charge and direct you to enter it on the books?

A. They make the charge according to his classification. I am familiar with that. I have done a great deal of that work myself and know how it is made out. But obviously that \$32.16 would not pay his expenses from Philadelphia and return.

Q. It is not the question of \$32.16, but I want to know the method and manner in which this business is done. You say you are somewhat familiar with the way that they make out these statements; do you know how many gas plants the U. G. I. controls?

Objected to on part of complainant as being immaterial.

A. I don't know off-hand. I think Mr. Douthirt has already testified to it.

Q. No, not as to all of them.

A. I wouldn't have any way of knowing; approximately 20 or 30 or 30 or 40.

Q. Do you know how many they have in Iowa?

A. Yes.

Q. How many?

A. I know as a matter of general knowledge, not as a matter of personal information, they are interested in Sioux City, Burlington and Des Moines in Iowa.

Q. So that there would be at least those three Mr. Norris would visit while in Iowa?

4416 A. Very likely.

Q. Now the next item \$993.52 just what does that item cover?

A. That is organization expenses. That covers the expenses of Mr. E. C. Morgan—

Q. Who is he?

A. Mr. Morgan at that time was one of the assistants to the counsel of the United Gas Improvement Company. And Mr. D. D. Rinehart, who was one of the auditors of the United Gas Improvement Company, and it covers a proportion of the bill which was rendered by Governor Cummins for legal services in respect to an opinion on the Des Moines Gas Company franchise.

Q. Where did you get that from?

A. That bill of \$800 was a part of a bill which he rendered the United Gas Improvement Company, amounting to \$1,500 with respect to the franchise.

Q. This was long before that opinion was rendered, wasn't it?

A. No; he rendered a further opinion later on I think, for which he was paid.

Q. Have you got the original bill sent here from the U. G. I. covering this item?

A. Yes, I think I have Senator Cummins' bill and his opinion.

Q. That is not what I asked you. Have you got the original statement of these items that were sent to you by the U. G. I. to be entered on your books here?

A. Certainly.

Q. That will help us if you have that here?

A. I don't know whether it is in the room or not. I was just saying or started to say that bill was apportioned between the \$1,500 between the plants at Sioux City, Burlington and Des Moines.

4417 Q. Which \$1,500?

A. The bill of Governor Cummins.

Q. Who did the apportioning?

A. That was done by the United Gas Improvement Company; the bill was rendered to them.

Q. That is what I would like to have, the statement of the United Gas Improvement Company sent to you and that you used here in making up the book entry?

A. I think I can get that.

Q. Now do you have the statement that was sent from the U. G. I. to the Des Moines Gas Company from which this item was entered on the books?

A. Yes.

Q. I wish you would let me look at it please?

(Presents statement to counsel.)

Q. This does not seem to cover what I am asking for.

A. That covers the item of \$800.

Q. That does not cover the item of \$953.53.

A. I have not given the various distributions of these items. They cover a period from March 30, 1906, to February 28, 1907.

Q. Then this is one of the bills that covers part of this item?

A. Yes. Do you want the others?

Q. I would like to have them all.

A. I thought you only asked for that one, General, excuse me.

Q. I notice at the right hand lower corner of this statement written the initials "J. E. 3-31-06 B. P."

A. That refers to the journal entry. J. E. refers to the journal entry, and B. P. means Ben Parks, the book keeper who entered that.

Q. And above the amount is written what looks like O. K. 4-6-06.

4418 A. I think that probably is my O. K. of the bill with my initials on it.

Q. Now have you the others making up the balance of that entry?

A. I have, yes sir. (Witness produces them.)

Q. Now the first one of these three last statements you handed me, which will be marked Exhibits 49, 50 and 52, reads as follows:

PHILADELPHIA, PA., *March 16, 1906.*

Des Moines Gas Company, Des Moines, Iowa, to United Gas Improvement Company, Dr.

Broad & Arch Streets.

Terms Cash.

February expenses of F. C. Morgan.....\$69.10"

Followed by what looks like the letter "J." In parenthesis. Organization expenses. At the right hand lower corner the letters "J. E." 31-06 B. P. O. K. J. H. 30-06.

Now that was the authority that you had for making this charge of \$69.10 into organization and expenses?

A. That is right. That bill came to me, of course, from the treasurer's office, treasurer of the Des Moines Gas Company.

Q. That you mean came to you from Mr. Lillie?

A. From Mr. Lillie's office.

Q. Do you know what Mr. Morgan was doing just about that time, what his duties were in connection with the U. G. I.?

A. I said he was assistant counsel to the U. G. I.

Q. Lawyer, do you mean?

A. Lawyer, yes; member of the Philadelphia bar.

Q. Was he regularly retained by the U. G. I.; was that your understanding?

A. That is my understanding.

Q. This \$69.10 is for some work he did in Philadelphia for the U. G. I. with respect to the Des Moines plant?

4419 A. The \$69.10 is for his traveling expense to Des Moines at the time of the organization of the Des Moines Gas Company. No charge was made for his time.

Q. He was here?

A. He came out here from Philadelphia to be here at the time of the organization of the Des Moines Gas Company in connection with some papers which were filed and so on, and this charge is to cover this expense.

Q. When was he here?

A. You mean the exact dates?

Q. Yes.

A. I can't give you the exact date.

Q. Do you have any other memorandum except this one from which you could get it?

A. Yes. He was here on March 1, 1906. My recollection is that he came here a few days before that and remained a few days after that.

Q. When were the articles of the Des Moines Gas Company filed, do you know?

A. March 1, 1906, I think.

The MASTER: Either February 28th or March 1st.

A. They were filed February 28, 1906.

Q. He was here then prior to February 28, was he?

A. Yes; he was here during that period of the organization of the company as attorney or lawyer.

Q. He was here as one of the attorneys of the United Gas Improvement Company?

A. Yes.

Q. Or was he then an attorney of the Capital City Gas Light Company?

A. No, he was attorney for the United Gas Improvement Company. If he had been the attorney of the Gas Company, we would have paid him directly the compensation for his time, and we only paid him for his expenses.

Q. It is your understanding this simply covers his traveling expenses to Des Moines?

A. His traveling expenses as indicated on the bill.

Judge CARR: Which included of course hotel expenses?

A. Oh, yes.

Q. Now the Morgan bill I have had marked Defendant's Exhibit 49. Defendant's Exhibit 50 reads as follows:

PHILADELPHIA, PA., *March 31, 1906.*

Des Moines Gas Company, Des Moines Iowa, to the United Gas Improvement Company, debtor.

Broad & Arch Streets.

Terms cash.

February and March Expenses of D. D. Rinehart.....\$117.92

In parenthesis, organization expenses.

Endorsed: J. E. 3-31-06. B. P. O. K. J. H. 4-2-06.

Who was Mr. Rinehart?

A. He was an accountant who was sent here to open the books of the new company and close the books of the old company, and his expenses but not his time were paid for by the Des Moines Gas Company.

Q. Who was this man?

A. He was an expert accountant.

Q. Was he one of their regular expert accountants?

A. Yes.

Q. Is this item of \$177.92 does that cover his entire expenses on that trip here?

A. I believe it does, yes.

Q. He was here in February and March.

4421 A. Yes, he was here a few days before the end of February, and a few days after the first of March.

Q. He was just here long enough to close the accounts of the Capital City Gas Light Company and open the accounts of the Des Moines Gas Company and see that the proper entries were made on the books of the Des Moines Gas Company.

Q. How did he happen to get here, do you know?

A. I don't know exactly how you mean, General.

Q. You mean you don't know what I am trying to get at?

A. I don't understand exactly what you mean?

Q. Did you send for him?

A. No, certainly not.

Q. Did anybody you know of here in Des Moines send for him?

A. No, he was sent by the United Gas Improvement Company.

Q. Who did he represent when he came here, Mr. Marshall, or the Capital City Gas Light Company or the U. G. I.?

A. He represented the United Gas Improvement Company.

Q. Was Mr. Marshall here at that same time?

A. No, I don't think he has ever been here—he has been here, yes.

Q. When was he here last?

A. I think he stopped here some time last winter, I don't remember.

Q. The only time he was ever here?

A. The only time I have any recollection of.

Q. How does it come that he wrote a letter from Des Moines in 1906; do you know anything about that?

A. No.

Q. He was not here at any rate at that time?

A. I don't think he was, but I am not sure.

Q. You would know whether he was here, wouldn't you?

A. My impression was when I answered your question first
4422 that he was here, but I remember seeing him in Chicago some time ago and I had the impression from what he said then that he had never been west of Chicago until some time last winter.

Q. If he was here you have not happened to find any credit for his expenses here, have you?

A. No.

Q. If he was here at that time, you would be apt to find it?

A. That would depend upon what his mission was here.

Q. Don't you know what he pretended to be here for at that time?

Objected to on part of complainant because the witness has stated he had no recollection of him being here.

A. I think the record would show.

Q. You know that the record shows that he pretended to enter into an arrangement between your old Gas Light Company and the new Des Moines Gas Company, and wrote a letter from Des Moines setting out the proposition?

A. Of course I won't testify as to what a man pretended; I will testify to the fact.

Q. If he was here at all in 1906, it was in connection with the Des Moines Gas Company and the Capital City Gas Light Company and the U. G. I.

A. Certainly.

Q. If he had been here for that purpose his expenses would be charged up the same as these other matters?

A. That I couldn't say; it would depend on his mission here.

Q. At any rate it is not here. Now, Mr. Rinehart, have you got any report, or anything on file that he made at that time? I would like to have a copy of his final report as to the condition of the books of the two companies.

A. I think that the first ledger of the Des Moines Gas 4423 Company will show it.

Q. No, I want the report that he made. Did you send for it??

A. Yes, I have sent for the book. There is no report; I simply sent for the books.

Q. You don't mean he didn't make a report to you?

A. Certainly.

Q. Who told you, Mr. Douthirt?

A. No, I sent for the books.

Q. I don't want but one witness on the stand at one time. I think it is entirely improper for counsel to tell the witness what to say. Now, you said that this Mr. Rinehart did not make any report?

A. He made no report of which I have any knowledge whatever, except that he opened the books of the company, started the accounts, instructed our book keepers how to keep them, and they have been kept so ever since, that is the purpose for which he came.

Q. You are ready to swear he made no report and you never seen any report that he made?

A. Certainly.

Q. You know you are not mistaken about that?

A. Absolutely, so far as I know. If he made any report I have absolutely no knowledge of it, except what he shows on our general ledger and journal and cash book. I believe he opened all three books when here.

Q. What did he do with his memoranda?

A. I suppose he entered it on the journal and ledger.

Q. No, but the memoranda, he didn't put all the memoranda on the journal and ledger?

A. That is the only place he would put it.

Q. Do you say he put it there?

A. To the best of my knowledge and belief.

4424 Q. How long was he here?

A. I can't tell you the number of days he was here. I

think in the neighborhood of four or five days or a week, General.

Q. What character of expense does this item cover shown on Exhibit 50, \$117.92.

A. It covers the proportion of his expenses from Philadelphia here and return which would be classified and charged to this Company.

Q. Do you mean traveling expenses and hotel expenses?

A. Yes.

Q. It is not a portion of it?

A. It is all apportioned to this plant. If he had made any other investigation or inspection at any other point, part would have been charged there I presume.

Q. Did he at that time?

A. I don't know. I don't know what became of him after he left here.

Q. Is there any way we can tell without having the books of the U. G. I. what he did on that trip and how much should be charged to each place?

A. I suppose you could produce Mr. Rinehart and find out from him.

Q. Can you produce him?

A. I don't know where he lives.

Q. Anyway you have no record from which you can say just what this \$117.92 covers except what is shown here on Defendant's Exhibit 50?

A. Certainly not.

Q. That is the only thing you know about it?

A. Except what I testified to.

Q. Except you know he was here during the month of February and some part of March, is that right?

A. Yes.

4425 Q. Now the next one that I have before me here is the Defendant's Exhibit 51, which reads as follows:

PHILADELPHIA, PA., April 3, 1906.

Des Moines Gas Company, Des Moines, Iowa, to the United Gas Improvement Company, Dr.

Broad & Arch streets.

Terms Cash.

To Notary service for three month- to March 31, 1906 as follows:

| | |
|--|--------|
| March 2, in re mortgage Des Moines Company | |
| Mr. S. T. Bodine, President..... | \$2.50 |
| Mr. W. A. McCune, Secretary..... | 2.50 |
| Mr. H. G. Lloyd, P. T. Con. Trust Co..... | 2.50 |
| To W. A. Opdike, Secretary..... | 2.50 |

The- on March 1, in re Capital City Gas Light Co. by

| | |
|--|------|
| Mr. S. T. Bodine, President, 9 affidavits..... | 2.25 |
| Mr. James Beal, Assistant Secretary, 9 affidavits..... | 2.25 |

| | |
|-------------|---------|
| Total | \$6.50. |
|-------------|---------|

Stamped on face of paper. Received April 5, 1906.

Answered..... Referred to.....

Date

Endorsed J. E. 31-06 B. P., and O. K. J. H. 4-6-06-

Now, all you know about that charge, or credit rather, is what appears on this Defendant's Exhibit 51?

A. Yes, of course the bill for notary services is the charge which is required by the Pennsylvania statute for notary services.

Q. I am not raising any question about the charge or size of the bill. I am trying to find out if I can how you did this business and why you did it the way it appears to have been done. Do you know what those affidavits were.

4426 A. No, I presume they had to do with the transfer of mortgage in the hands of the trustees.

Q. It says, in the Capital City Gas Light Company matter. Do you know anything about what affidavits they had to have—who was Mr. S. T. Bodine at that time?

A. The minute book will show.

Q. Well, he was an officer of the Capital City Gas Light Company?

A. Yes.

Q. Also an officer in the U. G. I.

A. Yes.

Q. All of these bills to which I have referred are bills that were originally presented to the U. G. I. for payment, were they not?

A. Yes, that is correct.

Q. The opinion that you have referred to that was made by Mr. A. B. Cummins was prepared for the United Gas Improvement Company of Philadelphia, was it not?

A. At their request.

Q. Well it was prepared at their request and for them. Now why is it credited up to the U. G. I. in the books of the Des Moines Gas Company?

A. Because the opinion of Senator Cummins, or Governor at that time, was one of the essential features in financing the securities of the Des Moines Gas Company in respect to the trustee and to the subsequent holders of those securities.

Q. Why didn't you charge it up to the Capital City Gas Light Company?

A. Because it passed out of existence at that time.

Q. When?

A. February 28, 1906.

Q. It had not passed out of existence when all these other
4427 men were here, had it, Mr. Rinehart and Mr. Morgan?

A. It was passing out of existence at that time.

Q. Wasn't some of those services, most of them, performed for the Capital City Gas Light Company?

A. No, the services here in connection with the company which was coming into existence at that time.

Q. Who was bringing the company into existence?

A. The incorporators.

Q. And who were they?

A. They show on the minute book.

Q. What did the United Gas Improvement Company have to do with it, why should their expenses be charged to the Des Moines Company?

A. They were expenses they incurred in the organization of the Des Moines Company.

Q. Then they organized it?

A. It was organized under their direction and their ownership of stock.

Q. Have you got anywhere among the files of your Company here a copy of the request that was made to Senator Cummins for the opinion, and his response with his bill?

A. I have had it; I don't know whether I can find it now. I have in my desk, I think, a copy of that.

Q. What was the date of his first charge?

A. I don't recollect.

Q. Have you got something there that shows?

A. I have nothing here except that bill which you have there.

Q. Well this is not the only bill that the senator presented to the Company. The date on this Exhibit 48 which was mailed to you from Philadelphia, as I understand it, is March 23, 1906. You do have, don't you, his bill that he rendered for services?

4428 A. I can produce it I think.

Q. I wish you would do that; that will show the date. Now we will pass that item for the moment and go down to office expenses, \$882.72. What is covered by that?

A. You are referring to the \$882 in Mr. Sangster's summary of these accounts?

A. I am referring to the \$882.72 credited upon your books to the U. G. I. and included in the item that I asked you about this morning of \$2,365.13.

A. That item Mr. Sangster has improperly classified and it does not check out with our classification. Therefore I think you have to ask Mr. Sangster to explain how he arrived at that figure. I have on the statement on which I have the account, according to our classification \$879.85.

Q. We will take your figures, the difference is so small, and you may state what that covers and let me have the bills and vouchers, whatever you call them.

A. The first item is stationery and office supplies.

Q. How much is that

A. \$160.80.

Q. Where is the bill that covers that, which you got from the U. C. I.

A. If you want to go through each one of these items, it will take us two or three weeks. These bills are made out in very great detail and minuteness. I would suggest you have Mr. Sangster check this thing and make an audit of the account. We can produce all of this stuff, but we will have to go to our books and vouchers and it will take us from two to three weeks to prove up each item in detail.

Q. I think we can get along without taking two or three
4429 weeks, because I am only going to cover in a general way the
one year and then have you say that is the manner and
method pursued in these subsequent years. If you will sit down a
minute, maybe we can get along without having that statement;
if you will tell me what this stationery and office supplies, as you
call it, what it was, and where it come from and when—what I want
to get at is enough of these items so that we will know just exactly
what they cover and how they come to be charged. I do not want
to annoy you or take any more of your time than is necessary.

A. Not at all. I was just giving you an estimate of how long it
would take. The stationery and office supplies are paper and print-
ing and report pads, like accident pads, which are forms upon which
we make reports of accidents; journal entry sheets, and things like
that, which are specially prepared forms to show the accounts of
the Company. I referred to the accident reports in there. The acci-
dent reports are not charged to the expense of the office properly;
they are charged to another item of damages.

Q. In other words, that item of \$160.80 represents the stationery
the office stationery, letter heads, bill heads and such other station-
ery as you have to use in the office that was printed in Philadelphia
for the Des Moines office and sent here by the U. G. I. with a state-
ment of the account.

A. Yes.

Q. And direction to credit it to the U. G. I. on the books?

A. Such general office supplies—of course the reason why that is
purchased from the U. G. I. is that the principal blanks are made
up in the same form and used in several places, and a proportion
of it is charged to this company, in proportion to the stuff
4430 they receive.

Q. For instance, I noticed yesterday in going through
some of these other exhibits, especially a letter signed by Mr. Norris
and attached to your estimate for next year appears to have been
prepared as a sort of a general circular letter and then the name of
the manager written in?

A. Yes.

Q. Now, I suppose what you mean is that the U. G. I. have station-
ery for all the plants that they control printed in Philadelphia,
and in so far as the forms can be general they use them for all their
companies and charge this office with its proportionate part of the
expense?

A. No, that is not correct. They charge for the actual stationery
which is used. That is, if they buy a thousand envelopes or a
thousand letterheads, we would be charged only for that thousand
at the prices which they pay for them. But if they have a report
blank, such as you remember I showed you, the 26 report blanks,
those will apply to any place, because their name is not printed in
them and they may purchase those in quantities of two or three
thousand sheets. Suppose I send in a request to furnish me with
say two dozen sheets or pads and they would charge me for that pad:

they keep them in stock in the store room. I purchased them from them the same as I would from any stationer.

Q. You say you purchase them from them the same as you would from any stationery house, you don't do that at all, do you?

A. How do you mean?

Q. You don't purchase them from them in that way at all. The U. G. I. directs just the amount and number of those blanks and envelopes that shall be printed?

4431 A. They never have with me. They may have done so with somebody else.

Q. Anyway, that printing is all done in Philadelphia, is it?

A. I don't know where it is printed; it may be in Buffalo, Syracuse, Philadelphia or any other place, but they carry this form of stationery in stock. When I run out I order it from the U. G. I. and they ship it the same as any stationery house would.

Q. All these authorizations that were here some weeks ago, these are all printed as made out in Philadelphia?

A. The authorization form?

A. Yes.

Q. Yes.

Q. All these annual estimate forms are printed in Philadelphia?

A. I don't know where they are printed.

Q. You don't order any of them?

A. I don't have to order them. I don't use that form.

Q. You did use it?

A. I copied it. I simply copied the annual estimate form that was sent here, only one sheet which was sent here, the original request for the information was sent to me.

Q. That class of printing is credited here to the U. G. I. and is covered by these items for that year anyway, \$160.80?

A. I don't know whether it is all covered, but that item covers similar items. All such things might be properly charged to office expenses.

Q. All you know about it is what some officer of the U. G. I. says in the statement that is sent to you to be used for the basis of the credit on the books here?

A. That is not strictly correct, because where the stuff is ordered, these bills are checked here.

4432 Q. Have you that?

A. I don't believe I can locate it.

Q. The next item is \$356.55—J. S. Harrison, who is he?

A. At that time was one of the traveling auditors of the company.

Q. I would like to see his bill?

A. That includes his time and expenses while in Des Moines.

Q. That is all right. I would like to see it.

A. There are two bills for that amount here.

Q. Let me have them?

(Witness produces bills.)

Q. That item \$356.55 is covered, is it not, by the two exhibits just noted by the reporter as Exhibits 53 and 54, the Exhibit 53 representing \$153.13 and Exhibit 54 representing \$203.42?

A. That is correct.

Q. Mr. J. S. Harrison, who did you say he was?

A. Mr. Harrison was a traveling auditor, and he and Mr. W. N. Porter—

Q. I want to dispose of Harrison now.

A. Mr. Harrison and Mr. Porter came here to make an audit of the consumers' accounts and cash, and check up the materials and supplies on hand, and check up the meters in stock. They are the force or part of the force of the traveling auditor who make periodic audits of these matters which cannot be sent to Philadelphia and audited there by the Philadelphia force. In other words they come here and audit some 25,000 or 30,000 account- from our consumers ledger and sundry sales ledgers and check up the honesty of the management.

Q. Who are these men checked up to?

A. They send out a notice to each one of the consumers saying
4433 "We notice on the books of the Company the amount of your bill is so much. Kindly return this in the enclosed envelope if correct; if not, indicate it, and then they sign their name at the bottom of it and enclose a stamped envelope addressed to them for reply.

Q. Then, if I understand you, these two men you are referring to are two men employed by the stock owners of this Company to go out and check up the managers of their properties to see whether the business is being honestly done?

A. They are a part of the regular force of the United Gas Improvement Company whose time and expenses are charged to this plant when employed here in making an audit as I have described.

Q. And for the purpose as you stated?

A. For the purpose of checking up the correctness of these consumers' accounts and the cash and the meters in stock and the supplies, all of which are reported in total.

Q. Well, what has the United Gas Improvement Company got to do with the Des Moines Gas Company's honesty of management?

A. They have this to do: they have these traveling auditors in their employ and that gives an opportunity for the benefit of their employment to be given to the Des Moines Gas Company for a limited length of time in order to accomplish this same audit by a general accountant firm which would cost very much more money.

Q. This Company had only been running a few months at that time?

A. I don't know what date they were here.

Q. The first bill is for September 1906?

A. These traveling auditors come in about every nine months to a year. They drop in unknown, unawares and make their audit.

Q. They drop in without notice to you or anybody in control here?

A. Yes, they are sent by the treasurer of the company in Philadelphia.

4434 Q. They come out exactly the same way that the checking auditors of railroads and other corporations go out to check up their agents; that is the way you understand it?

A. Yes, I think so; I think that is a general statement of the proposition.

Q. These two bills, Exhibits 53 and 54 is the only authority that you had for having your book keeper here make these credits on the books of the Des Moines Gas Company, are they?

A. Yes.

Q. All you know about the accuracy of the items is what appears on the face of those two exhibits?

A. Those auditors, of course, make out their expense sheets and turn them into the treasurer of the Des Moines Gas Company in Philadelphia. These bills are approved by him and sent out by him.

Q. That is not correct, is it?

A. That is correct.

Q. Well, that is not where you get the bills from at all?

A. I get them from the United Gas Improvement Company.

Q. So that they make out their bills to the United Gas Improvement Company?

A. Well, General, it simply comes from a confusion of the fact that there is one man instead of two acting for both companies.

Q. If they made their bill to the Des Moines Gas Company and the Des Moines Gas Company's treasurer paid it, it would simply be charged to the expenses of the Des Moines Gas Company and entered into the record of the Des Moines Gas Company, instead of being credited to the United Gas Improvement Company?

A. They practically go through the same process.

Q. Have you got any statement in your books anywhere 4435 from the treasurer of your Company to show these bills were made to him?

A. No except they come from him to me.

Q. He don't send these men out here?

A. Yes, they came out as a part of his general organization.

Q. I thought you said a moment ago they were all the time for the U. G. I. and dropped in and kept checked up the plant for the purpose of testing the honesty of the local management?

A. You misunderstood me. I did not mean to say they simply traveled around. That I mean is, so far as their time of arrival here goes, I have no information of, but their movements are directed by Mr. Lillie.

Q. Do you mean you want us to understand that the auditor that is coming to find out about the honesty of the management would let the treasurer of the company know he was going to check up the company, the very man that has the fund?

A. I am not the treasurer of the Company. They make an audit here locally.

Q. But you do not have anything locally?

A. I have a good deal of money and property.

Q. How much money did you ever have here locally?

A. About, I suppose from ten to fifty thousand dollars.

Q. I wish you would bring in your bank pass book at the next

convening of court showing the deposits of the Des Moines Gas Company in the local banks, covering say the year 1910.

A. I am perfectly willing to bring the book in, but all the money received by the Des Moines Gas Company is deposited in the local banks, so they will simply show each day's receipts as deposits.

Q. They show when it goes out?

A. The check book will show.

Q. The Bank book will too?

4436 A. Only at the end of the month the checks which have been turned in for payment at the bank.

Q. What checks do you pay with?

A. I pay all checks here.

Q. What checks do you draw here on the funds of the Company?

A. All the checks, except a few, such as checks for bond interest to pay to the trustee which the treasurer draws in Philadelphia.

Q. Who is the treasurer here?

A. Keffer is assistant treasurer here.

Q. He is not doing any business now?

A. During his absence Mr. Sherman is acting in his place.

Q. Who is Mr. Sherman?

A. My book keeper.

Q. He is acting temporarily as treasurer?

A. Just temporarily.

Q. You do not send any checks to pay bills of the U. G. I. to Philadelphia?

A. I always do now. During the years you have under consideration we did not have money enough, so they simply sent them to us as a charge on our books. But I now pay all their bills just the same as I would pay a local merchant or any other bill.

Q. Tell us how you do it—suppose last month the U. G. I. had shipped to you \$10,000 worth of cast iron pipe, just tell the Master how you would dispose of the cash side of that transaction?

A. In the first place, your premises are wrong, because they do not ship us cast iron pipe.

Q. But assume that they sent you \$10,000 worth of cast iron pipe, how would the pipe be paid for, just — the Master what the method would be?

A. They would render a bill for the \$10,000 worth of cast iron pipe.

4437 Q. The U. G. I.?

A. Yes. It would come to my office and the amount of pipe would be checked by the receiving store keeper according to the weigh-bills so as to see that the amount was accurate, and he would return that check to my office, and when the bill for the pipe was received by me it would be compared with his check and if it was correct, a voucher made out and a check would be made out in accordance with the voucher on one of the three banks with which we deposit our funds in the city.

Q. Who would the check be payable to?

A. It would be made payable in that case to the United Gas Improvement Company.

Q. And drawn upon the bank here?

A. Yes, and signed by Mr. Sherman as acting for Mr. Keffer, and counter-signed by myself as president.

Q. Where would it be sent to?

A. To Philadelphia, or from whom the pipe was purchased.

Q. It would be sent to the U. G. I. or go to the treasurer and would be counter-signed by the treasurer in Philadelphia and endorsed by him?

A. It would be sent to the United Gas Improvement Company and deposited with their receipts.

Q. What money is it the treasurer has on deposit in Philadelphia that belongs to this Company?

A. The money that is deposited there in order to meet the payments for bond interest.

Q. How does it get there?

A. It is sent there from this office. I send it there.

Q. When do you send it, when the interest is due or before?

A. I try to send it before the interest is due so as to avoid the necessity of his borrowing it.

4438 Q. Mr. Haines, do you have in your office here now any record that is a duplicate of the Treasurer's books in Philadelphia?

A. Well, now, what books do you mean; I have some and not others.

Q. Well, whatever books he keeps as treasurer of your Company.

A. No, I only have our general ledger and journal, a copy of which he has there.

Q. But as I understand it, Mr. Lillie now keeps a set of books at least covering his own transactions as treasurer for your Company, bank books, and probably a ledger and journal and a deposit record; do you have duplicates of those things?

A. He would only need to keep a bank book and check book, because if he makes a payment there on account of bond interest or for whatever other purpose is necessary, it would show on our books; he would make out the voucher there and send it to me to approve and put on my books here. Then he would draw his check and make a payment there from this money I have sent to him, and which he deposits in the name of the Des Moines Gas Company. Do I make myself clear?

Q. Yes, entirely clear. You have not, as I understand it, here any books that are duplicates of his books in Philadelphia?

A. No, we have no duplicates.

Q. You don't even have a copy of his cash register, whatever he keeps his cash account on as treasurer of the Des Moines Company.

A. I suppose he would simply keep that on his check book, because it would correspond with our cash account here.

Q. Then he has nothing to do with any part of the business of the Des Moines Gas Company, except to handle the little money, whatever it amounts to, that must be used at the Philadelphia end

to pay interest of the U. G. I. there?

1439 A. That is all he has to do with that account. It is all the cash that he handles, except I don't know whether I understood your question to include what I thought it did. He handles all the cash I send down from this plant to meet these payments. But of course what money he receives from the sale of securities as they are issued, they are deposited to this same account.

The MASTER: You charge him with the money that is in his account as treasurer?

A. Yes.

The MASTER: You credit him with the amount he pays?

A. Yes.

The MASTER: You keep a separate account of that?

A. Yes, just a separate account.

Q. You do have a duplicate of the record that he keeps, don't you; those two books would check up?

A. Certainly, I have a duplicate of his record, or a duplicate of his check book or pass book.

Q. But you do have what could be said to be a duplicate ledger account?

A. Yes; that is, I have the original and he keeps the duplicate himself; it is a part of our regular book keeping.

The MASTER: His entries would be just the reverse of yours?

A. We charge him as treasurer with the money he has deposited.

The MASTER: Then he would charge himself with it?

A. Yes, he would charge himself with it when he made those payments.

Q. I will get what I want in another way. You spoke about when he sells securities; when he sells securities and gets the money for them how do you find out just what money he has got?

A. He sends me the entries to put on the books.

4440 Q. He writes a letter with the statement showing just what securities have been sold?

A. Yes.

Q. Who they were sold to?

A. Yes.

Q. What was received for them and whatever expense was made in connection with the sales and directs you to make these entries on your books here?

A. I don't know that he tells me who they are sold to. He simply sends the entry to put on the books showing the amount received and number of bonds.

Q. Do you remember the last sale of bonds, when it was?

A. No, we can find it in the books in a few moments.

Q. You have his statement showing the sale of the last bond and the statement from which you made up your record on your books?

A. Yes, it is on the journal.

Q. Well, get that, we might just as well have it now. It is the statement I want which Mr. Lillie sends to you.

A. It is copied in the journal.

(Witness produces journal.)

Q. You referred, Mr. Witness, to the record on page 200 of journal #3 as being a copy of all the treasurer sent to you with respect to the sale of bonds in amount of \$60,000?

A. I don't think this is his sale of bonds. This is simply an authorization for the issue of bonds.

Q. That is simply a statement covering bond sales for several years and showing balance unsold, don't it?

A. This is the entry for the amount of bonds certified and delivered.

Q. But that is not the entry and that is not the statement that was sent to you by the treasurer for the purpose of making up
1441 his account on your books?

A. No, I think not, General.

Q. Do you have now, Mr. Haines, before you the record which you say is a copy of the statement of the treasurer of the Des Moines Gas Company covering the last sale of bonds of the Des Moines Gas Company?

A. I believe that is the last sale of bonds, General, yes.

Q. Do you have the record?

A. Yes, page 116, Journal #3 of the Des Moines Gas Company.

Q. Now does page 116 of Journal #3 contain all of the record, all of the statement that you have from the treasurer of the Des Moines Gas Company for the last sale of its bonds?

A. I think so, General; the practice is to keep that statement right in the Journal.

Q. I don't care about the practice.

A. Of course I do not keep this think myself; my recollection is this is a copy of the exact statement.

Q. Have you the exact statement?

A. I think it is on file somewhere.

Q. I wish you would bring that, then we can tell.

A. This statement is sent to me by the treasurer and I turn it over to the book keeper and it is copied right into the Journal as it is sent, unless there is some error in copying, this would be an exact reproduction of that statement.

Q. What I want, Mr. Haines, is everything that you have now from the treasurer from which you made the entries in your books covering the last sale of bonds of the Des Moines Gas Company.

A. Your own book keepers have been over all this. Mr. Sangster had opportunity to investigate this.

Q. I would much prefer to have it from you; if there is anything I would like to have it.

At this time an adjournment was taken until 9:30 a. m. Monday October 2nd, 1911.

4442

Monday Forenoon Session.

OCTOBER 2, 1911 — at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JANSEN HAINES, continuing his direct examination, examined by Hon. H. W. Byers, testified:

Q. Now, Mr. Haines, on Saturday forenoon we were inquiring about the statement from the treasurer covering the last sale of bonds, did you find that statement?

A. I did.

Q. You have it with you?

A. This is it, yes sir. This is the entry for placing on our books in Des Moines, of the Des Moines Gas Company, and a letter accompanying it, and my acknowledgment of the letter, under date of October 2nd, 1911.

Q. Defendant's Exhibit 55, Mr. Haines, made up first of your acknowledgment to Mr. R. C. James, of October 5, 1910; his letter to you of September 29, 1910, and the sheet marked "Des Moines Gas Company Journal Entry, September 15, 1910," is the statement that you produce as being the authority for the entry on the Des Moines books of the sale of the last bonds sold?

A. Yes.

Q. Now, this entry on the books of the Des Moines Gas Company, Mr. Haines, after the heading of the date, says "Sundries" and then "Treasurer \$77,107.50." Now that item indicates what?

A. Which item is that?

Q. The item of \$77,107.50—what does it mean when you get it on your books here?

A. That would mean the amount of cash received for the
4443 sale of \$81,000 worth of bonds.

Q. That would mean a charge to the treasurer, Mr. Lillie, of that much money?

A. That would mean a charge to the treasurer, Mr. Lillie, as Treasurer of the Des Moines Gas Company for that amount \$77,107.

Q. In other words, when that entry was made on the books that indicated that Mr. Lillie had that money in his hands in Philadelphia, didn't he?

A. That he was charged with that much money as treasurer of the Des Moines Gas Company.

Q. That was not the question.

(Question repeated.)

A. I don't suppose he had it in his hands; he probably had it in the bank.

Q. It indicated that he had that much money at that time that belonged to the Des Moines Gas Company.

A. He was charged with that much money that belonged to the Des Moines Gas Company.

Q. Why do you make a distinction between having the money and having it charged?

A. I don't understand what you mean by having the money or having it charged.

Q. It want to know whether he had that money at that time or had it been paid out?

A. Oh, he had the money; had on deposit in the bank to his name as treasurer of the Des Moines Gas Company.

Q. That is all I wanted. How was it paid out and when?

A. You will have to turn to Mr. Lillie's check book to find that out.

Q. Have you got something here that will show; we haven't Mr. Lillie's check book here, you know?

A. Yes, the entries would be sent to me; if he paid it out on 4444 his check as treasurer of the Des Moines Gas Company in Philadelphia; he would send the entries to be made on our books, crediting himself with that amount and charging the account for our entry here, on whatever account it was paid out here.

Q. Well, has it been paid out?

A. Why, I presume it has, General; our books will show.

Q. Is the book here that will show?

A. I suppose all of our books are here and they will show. Mr. Hall and Mr. Sangster have been over them and they should be able to tell you whether they will show or not.

Q. You can turn to the ledger account very promptly can-not you?

A. It is probably more than one entry, probably a number of entries; we will send for the books and bring it in here and let your auditors make an audit here if you wish.

Q. Mr. Haines, I want this testimony from you and not from Mr. Sangster or somebody else, or some of your people; I don't care if there is somebody else among your men that can do it better than you can. You ought not to have any trouble to tell where that \$77,-107.50 went to.

A. I won't undertake to tell you where all the funds have been distributed without the books.

Q. Now the next journal entry is "Property Purchased \$4,050.00" what does that mean?

A. That represents the discount on the sale of these bonds.

Q. That item of property purchased is just simply the term you used to balance the account, to show the discount on the bonds, that is all that is?

A. The discount on the bonds is charged against the property purchased.

Q. Well, what do you mean by the property purchased?

4445 A. Well the property purchased account is the original account of the property which was purchased.

Q. You mean whatever was purchased, that the \$81,000 in bonds is charged up to the full \$81,000 and that is what the entry means, is it?

A. Well, General, I don't think that you and I understand the same thing by the entry. The books will show what the entry means; I prefer to produce the books.

Q. Will the books say anything different from what you furnished me?

A. They will show what became of the money; that is what you asked me for.

Q. As I understand it Mr. Lillie is charged with \$77,107.50 on the theory that that much money actually came into his hands for the sale of bonds in the sum of \$81,000.

A. There is no theory about it; we are not dealing in theories; we are dealing in facts; that is a fact that he was charged with that much money.

Q. Why are you so positive about that being a fact; do you know that Mr. Lillie actually had this money or he got it for these bonds, other than simply a book matter all the way around?

A. I will show you what proof we have of it in a minute.

Q. While they are getting that, you stated yesterday when I was asking you about this—

A. I would rather answer this other question first, General.

Q. All right.

Judge CARR: We have Mr. Lillie's check book in which these accounts were kept. Mr. Haines assumed they were here; they are at the office and we will have them here in a moment.

4446 The WITNESS: Have you that statement General?

Mr. BYERS: No, I have not.

The WITNESS: Here it is, I have it. Now, General, if you will step over here I will show you this check book.

Judge CARR: You had better make your record as to what proof you have.

Q. Do you now have the check book of Mr. Lillie that you referred to a moment ago from which you said you could find the proof of the payment of this money or receipt of the money?

A. I have.

Q. Will you produce it, please, and have the reporter mark it "Defendant's Exhibit 56?" You have had it marked as Exhibit 56?

A. I have.

Q. Now let me look at it.

(Witness produces book.)

Mr. BYERS: Let the record be clear that Exhibit 56 is the book produced by the witness Haines as the check book of Mr. Lillie, treasurer of the Company. Now this Exhibit 56 you say is the check book used by Mr. Lillie in his business with the Des Moines Gas Company?

A. As Treasurer of the Des Moines Gas Company.

Q. I wish you would call my attention to the place in this book where you say the proof can be found that Mr. Lillie received \$77 thousand dollars and a fraction for the \$81,000 in bonds; what there is in that book that will show he got that money from anybody from any place?

A. That is the entry which he has made in his check book and it is sufficient proof for me to believe that his transaction was made in accordance with his entry.

Q. I know, but it is not proof sufficient to you that I am looking

for or that the Master is looking for. Is there anything else
4447 than just the memoranda that is on the page marked Defendant's Exhibit 56 that shows anything about the money?

A. There is this—this book is a regularly kept check book, kept in the usual form, in the way that practically all check books are kept by competent business men. That is simply one of the entries in the book and there is every indication that his book is properly kept.

Q. Who were the checks made payable to, you are talking about?

A. I am talking about the check book.

Q. You mean you find in Mr. Lillie's check book his ledger account showing that he actually got this money and paid it out?

A. I didn't say that. I said I find in his check book the entry which was made.

Q. Let me see if I can find it out. (Check book examined by counsel.) Is this entry on the back of the three stubs of date June 30, July 16, and July 29 all the memoranda that can be found in this Exhibit 56 referring to this sale of \$81,000 of bonds?

A. You will have to show me the book before I can answer. (Counsel produces book.)

(Question repeated.)

A. This is all of the entry in this book. The balance of the entries covering this would be found in the minute book and journal and ledger of the Des Moines Gas Company.

Q. I am not asking you about any balance; just answer the question as it is stated there.

A. I think I have answered it.

Q. Do you know whose handwriting that entry is in?

A. No, I do not. It is made under Mr. Lillie's direction as treasurer of the Des Moines Gas Company.

Q. Do you know who made that entry?

A. How do you mean?

4448 Q. Who wrote it on there?

A. Who did the actual work of writing the entry on this sheet of paper with the pen?

Q. Yes.

A. I haven't the faintest idea.

Q. When was it put there?

A. It was put here under date of September 15, 1910.

Q. You read that, did you, from the entry?

A. I did.

Q. Do you know when it was placed there?

A. I haven't the faintest idea.

Q. When did you first see it there?

A. When I asked for it just now.

Q. Now my original question, to get back to it, Mr. Witness, was to inquire of you with respect to the money for the sale of the \$81,000 in bonds, and you said you would furnish me the proof in the check book; is this the proof you refer to, found here on Defendant's Exhibit 56?

A. Certainly; that taken in connection with the minute book and our general books would be sufficient proof for any bookkeeper to determine the question you ask.

Q. Is that all the reference you have of it in your office, what appears on this Exhibit 56, of this money \$77,107.50?

A. No, certainly not. In the first place this check book is not a record kept in my office. This is a record the treasurer of the Des Moines Gas Company keeps in Philadelphia.

Q. Doesn't your record agree with this?

A. Certainly. And this entry which is marked Exhibit 55 is the entry which was sent me by the treasurer of the Des Moines Gas Company when he received this \$77,107.50 for the sale of 4449 these bonds, and when he deposited this \$77,107.50 in the First National Bank of Philadelphia as is shown by the record which I made of it at or about that time, or under date of September 15, 1910, on Exhibit 56. Does that answer your question?

Q. Not quite, Mr. Haines.

A. If you would only tell me what you are trying to get at I would be very glad to help you.

Q. I will tell what I am trying to get at. It is not the question you suggested to the Master a few moments ago that I am worrying about at all—as to whether or not these entries were made as you say they are made, or whether they agree with your books or whether they are correctly made; what I am trying to get at is just where this money went; I am trying to get at the method of business of the Des Moines Gas Company and the United Gas Improvement Company; there need be no misunderstanding about that?

A. We will take out books and go right to it. Our books will show it directly.

Q. No, I will take my own method. You say the \$77,107.50 actually came into the hands of Mr. Lillie in money; now what I want to know from you is when it was paid out and to whom?

A. That we will show by our own books; that is our journal, ledger and cash book, and by the stub of the check book which was kept by Mr. Lillie, and by the cancelled checks to correspond with these stubs.

The MASTER: Is there no order issued by the president for the payment of this, or how is that done? For instance, a bill comes here now and is there a warrant issued by the president and countersigned by the secretary, directed to the secretary?

4450 A. If a bill comes in, Your Honor, the treasurer don't pay it, except in a very few instances. He only pays approximately thirty or forty bills a year, including interest. But the bills that are paid for materials, supplies and current operation business are all paid in Des Moines by checks drawn on the Des Moines banks and signed by the assistant treasurer of the Company and countersigned at this time by myself as president.

The MASTER: Is a warrant issued, an order drawn by the presi-

dent of the company upon the treasurer or assistant, and countersigned by the secretary of the company, or how is it?

A. I don't quite understand what you mean by warrant.

The MASTER: I mean by that an order on the treasurer to pay this amount of money?

A. If the treasurer was to pay a bill for interest or any other purpose, he would make out a voucher for that amount and that voucher would be sent to me with an explanation for approval and if it was for interest, it would be self-explanatory, and I would approve it and he would pay it out of his treasurer's account and make the entry in his check book and the voucher would be entered on our books here.

Q. Let me ask you, Mr. Haines, if this is not true, see if I cannot help you to find this right here: the entry you called my attention to purports to be the treasurer's account carried on the back of his check stubs. He carries over on to the back of three checks that appear to have been drawn, one on June 30, 1910, one July 16, 1910, and one on July 29, 1910, a balance of \$26,922.01. Then the next item is 9=1 deposited interest on daily balance, August \$18.04. Then under 9=15 deposited U. G. I. sale of \$81,000 par bonds at 95, equals \$76,950. Nos. 1017 to 1097 inclusive; accrued interest 9=1 to 9=15 \$14. at 5% \$157.50; now that means, 4451 does it not, just what it says, that there was deposited with the U. G. I. that amount of money?

A. No, sir, exactly the reverse. That money was received from the U. G. I. and deposited to his account as treasurer of the Des Moines Gas Company.

Q. Then it was received from his account?

A. That is exactly what it states.

Q. The money then, if there was actual money, came from the U. G. I. to Mr. Lillie?

A. Certainly.

Q. Let me see if I can't show you where it went to. Following in the same book on August 30, 1910, is the stub of a check showing payment to the Commercial Trust Company, six months' interest due, 9-1-10 on first mortgage 5% twenty year gold bonds, No. 109, or amount; I don't know whether it is number or amount. The figures are 109,730. less amount held in treasury \$81,000. Then the figures 101,630 interest on 101,630 for six months \$25,400. Of course, it was no part of that money, was it?

A. What part of the money?

Q. Was that a part of this sale of \$81,000 bonds—when was that sale?

A. The \$77,107.50 that went into the deposit of the treasurer together with what other deposits he had there and the interest on bonds, preferred stock contracts, and retirement of preferred stock contracts was paid out of that, just as everything else would be paid out of it. You can't say a part of that money went to any one purpose; it went into the deposits to the account of the Des Moines Gas Company, or rather to the treasurer of the Des Moines Gas Company

and stood in the name of the treasurer of the Des Moines Gas Company in the First National Bank.

4452 Q. Do you know when this sale was made?

A. The sale of bonds was made?

Q. Yes.

A. Have you got the minute book?

Q. This memoranda shows September 15, but that couldn't be the time they were sold?

A. Well, we will produce the minute book and find out when the sale was made.

Q. You were down there about that time, weren't you, in Philadelphia, in September, 1910?

A. I was there in October; I am not sure, probably I was, I may have been. I really would not want to answer without looking it up. If you want me to I will, I think I have the record of it. Now, General, Defendant's Exhibit 27, the stockholders and directors minute book of the Des Moines Gas Company, No. 1, on page 219, at a meeting of the board of the Des Moines Gas Company, held of date August 15, 1910, has the following minute: Sale of \$81,000 worth of bonds, authorizing the treasurer to sell at 95 accer-ed interest \$81,000 of the Company's first mortgage bonds, being \$32,000 par value of bonds now held in the Company's treasury and \$49,000 par value of bonds for certification of which provision has been made at this meeting.

Q. Are you giving that now as the date of the sale; that is what I am trying to get at, the date of the sale?

A. Now, let me take the check book and I believe I can figure out when the sale would have been.

Q. I wish you would take your pencil a minute and make some figures for me, if you care to. I find that on the 31st day of August, 1910, following the entry on the book, the checks I have referred to heretofore in defendant's Exhibit 56, the following amount
4453 entered: As August salaries \$833.33 to S. T. Bodine, W. Clark, L. Lillie, W. F. Douthirt and J. A. Pearson. On September 15, the date that this deposit is noted here on the back of the checks referred to heretofore, is the stub of a check drawn to the United Gas Improvement Company for six months' interest to 9-1-10 on preferred stock contracts of this Company at 6%, \$14,222.67; on the same date September 15, 1910, I find a check which purports to have been drawn payable to the United Gas Improvement Company and the stub shows the amount paid pursuant to a resolution adopted by the board 8-15-10 on surrender for cancel of preferred stock contracts \$63,236.41; then on October 3, 1910, September salaries \$833.33 and on October—I don't know whether it is 4th, I guess it is 24th, a check to yourself for \$50 and another one of the same day for \$50—

A. What date was that?

Q. October 24th; they are both on October 24th. Now will you foot up that amount and see if that does not about account for the sale of these bonds?

A. Have you got it footed up?

Q. No, I didn't foot it up. What does it amount to?

A. The total of these items which you have just given me would amount to \$79,225.74.

Q. Then if I understand this record correctly here, on September 15, 1910, the United Gas Improvement Company bought from its treasurer, who is the treasurer of the Des Moines Gas Company, \$81,000 worth of bonds for the sum of \$77,107.50 and out of that this \$63,236.41 to retire stock contracts, and \$14,222.67 interest on the contract was paid to the United Gas Improvement Company; is that right?

4454 A. No, it is not right.

Q. The truth, I suppose, is all there was to it was simply a book entry, isn't that right, so far as Mr. Lillie is concerned?

A. Your statement of the transaction in the first place is incorrect.

Q. In what respect?

A. If you will read the statement perhaps I can correct you, if that is what you want.

Q. Yes, I want to get it right. I want to know just how this business is done.

A. In the first place, the United Gas Improvement Company bought these bonds, not from its treasurer, but from the treasurer of the Des Moines Gas Company, upon the authority of the board of directors of the Des Moines Gas Company.

Q. Who were they?

A. As already shown, in previous testimony.

Q. Who were the directors you claim authorized it?

A. I will look at the minute book and see. On August 15th, the directors at that meeting were President Bodine and directors Clark, Douthirt and Thompson constituted a quorum, of the Des Moines Gas Company.

Q. President Bodine is also vice president of the United Gas Improvement Company, or was he president?

A. Mr. Bodine, I think, at that time was vice president of the United Gas Improvement Company.

Q. All these men whose names you read are officers of the United Gas Improvement Company, as well as of the Des Moines Gas Company?

A. Director Clark, that is Mr. Walton Clark, he was I think third vice president at that time and general superintendent in charge of the superintendent's department. Mr. Douthirt and Mr.

4455 Thompson they are all employed by the United Gas Improvement Company in the active operation of its business and the business that comes to it by reason of its—well in the operation of its business.

Q. Its, whose business?

A. The United Gas Improvement Company's business.

Q. They are all officers of the United Gas Improvement Company?

A. I don't think Mr. Thompson was an officer.

Q. How did he come to be authorizing the sale of bonds in the Des Moines Gas Company—is he an officer of the Des Moines Gas Company?

A. He is a director of the Des Moines Gas Company and in that capacity he voted on the sale of these bonds.

Q. What is his relation to the United Gas Improvement Company?

A. He is employed by the United Gas Improvement Company in the capacity of assistant to Mr. Clark. I do not think his title is assistant to the vice president but—

Q. Is there anything in that record, that minute book that authorizes the sale of these bonds to the United Gas Improvement Company at 95 per cent.

A. I think so. It is in the authorization to sell the bonds at 95 per cent to the United Gas Improvement Company, and the United Gas Improvement Company was the only purchaser who would pay such a price. No other concern would buy them except some one who was interested in the property, and to protect itself—

Q. You mean except some one who was buying their own bonds?

A. I don't see how you can say that.

Q. I will not argue it with you. I notice on the back of the list of check stubs—

A. I did not complete my answer to that previous question. 4456 The first question that you asked, when I stopped the reporter and asked him to read a part of the question.

Previous question read as follows: Then if I understand this record correctly here, on September 15, 1910, the United Gas Improvement Company bought from its treasurer, who is the treasurer of the Des Moines Gas Company \$81,000 worth of bonds for the sum of \$77,107.50, and out of that this \$63,236.41 to retire stock contracts, and \$14,222.67 interest on the contract was paid to the United Gas Improvement Company; is that right?

A. I can't answer that question until I see the check book. I want to see what the previous balance was and the subsequent balance was. The retirement of preferred stock contracts and the interest I think was paid out of the total deposits on hand at that time.

Q. What were they. I want to know whether any part of this \$77,000 of the proceeds of these bonds went to the United Gas Improvement Company to retire stock contracts, and if so, how much?

A. The proceeds of the sales of bonds was deposited to the treasurer's account and the money which was used together with the deposits which were received as remittance from Des Moines and interest and other balances in the bank and from every other source—the preferred stock contracts interest I think and the salaries, and the two \$50 checks which were paid to me for my expenses returning to Des Moines from Philadelphia, were all paid out of the money which the treasurer had deposited to his account in the bank and which was or had been received from these various sources I mention.

Q. Including the bonds?

A. Including the bond.

4457 Q. Then the answer is that the \$77,000 did go to the

U. G. I. for the purpose of paying interest, salaries and retiring a certain amount of preferred stock contracts?

A. It is true in part; it went together with whatever other deposits he had.

Q. The treasurer according to his statement on the back of these three stubs that I have referred to, made as of date June 30, July 16, and July 29, 1910, had on hand \$26,922.01. Now it is fair to assume that is what he had after the payment of the check of July 29, 1910?

A. Well, the account is balanced at the foot of every page. You can tell—

Q. No, you can't tell. Now it is fair to assume that is the balance carried over?

A. I don't want to assume anything. Let me have the treasurer's account on our ledger; that will show exactly.

Q. Now to make this little checking up complete you had better have your own bank book there too, because I am going to inquire about what you have here.

A. We have them all here.

Q. Now, then, what was Mr. Lillie's balance on July 29, 1910?

A. I haven't got it on July 29. It is on the 31st here, July 31, it is \$5,920.89.

Q. That don't agree with his account here?

A. Don't agree with his account of that date?

Q. No.

A. Of July 31st?

Q. No.

A. You better get your book keepers and help you check it out?

Q. At least, the check drawn here, Mr. Haines, is a check
4458 drawn for July 29, 1910, for \$833.34 by Mr. Lillie to the First National Bank, and then he carries it over from July 29th, 1910, on the back of these stubs, where he is carrying forward his balance \$26,922.01.

The MASTER: Your books show a different date of entry?

A. What is your question?

Q. My question was, what was Mr. Lillie's balance on the 29th day of July, 1910, or the 20th day of July 1910, if you prefer to have it that way?

A. The balance as shown by his check book is—

Q. Let me have it a minute, Mr. Haines, and I will get at it in another way.

Judge CARR: What is the amount stated there?

A. \$26,922.01.

The MASTER: The books do not agree as to the dates; that is the trouble.

A. His balance on the 31st of July, 1910, which is the way in which the books are kept, was \$5,920.89.

Q. On the 31st, you say?

A. Yes.

Q. What do you say the balance was?

A. \$5,920.89.

Q. That is what your books show?

A. That is what his book already offered in evidence shows too.

Q. You say that is what his book shows?

A. That is what his book shows.

Q. Perhaps we had better let his book speak for itself?

A. It does.

Q. What does this \$26,922.01 carried to the last page, July 29, 1910, what does that represent?

4459 A. That represents the balance which the treasurer had on deposit after entering his receipts and deducting the checks paid by him up to the period at which the balance was made.

Q. Represents exactly what I stated it did, does it not, the balance after the payment of the last check there on July 29, 1910, which appears in Mr. Lillie's balance?

A. It does not represent the balance after the payment of that check, because there are receipts after the payment of that check under date of August 2nd, interest on daily balance \$1.12 and August 22nd \$15,000.

Q. But you are away over in August now.

A. August 26th, \$6,000.

The MASTER: On that day there, July 29th, I don't see how that would affect it.

A. That is the date on which the last check was drawn, but not the date at which the balance is made. The balance is not made until after all these deposits have been received. It shows right here on the book.

Q. Whatever the fact may be about the dates of these entries and the balance Mr. Lillie had on hand just prior to the issuance of a check on August 30, 1910 and before receiving the September money for these bonds \$26,922.01 didn't he?

A. That is the balance - \$26,922.01 which is shown as carried forward from the previous page on his check book Exhibit 56, being the difference between the receipts by him or money deposited by him and the checks paid by him prior to that date.

Q. Prior to what date?

A. Whenever that balance was carried forward.

Q. When was it carried forward?

A. It was carried forward prior to September 1st.

4460 Q. When did he make the balance—didn't he make it on the day he drew the check July 29?

A. Not necessarily.

Q. Isn't it written on the stub here?

A. No, it is not; in fact it shows to the contrary.

Q. Well, give us two days between which you say that was?

A. It is very evident after this check, July 29, 1910, was drawn there are three deposits—

Q. I'll get to the deposits later. I want to get the balance on some day when you are willing to fix the date of the balance.

A. Some time prior to September 1st, on this book.

Q. You are sure it is before September 1st, are you not?

A. Yes, I think it is before September 1st.

Q. Now he makes an entry on the book here, does he not, on the very first day of September, for deposit, interest on daily balance for August \$18.04.

A. That is correct.

Q. Now it is fair to assume, is it not, that the balance \$26,922.01 was his balance on that day and before the deposit of this \$18.04.

A. That would depend on whether there were checks drawn between those two periods, General.

Q. We are safe in assuming anyway it was before the first of September?

A. It was about the first of September.

Q. Now the next check that seems to have been drawn here, can you tell there what Mr. Lillie's balance was on the 1st of September, 1910, according to your books?

A. On August 31, the balance was \$688.68.

Q. On August 31st?

4461 A. Yes.

Q. How much do you say it was?

A. \$688.68.

Q. Now that is August 31?

A. August 31.

Q. Now he has here an entry just prior to this September 1st, \$26,922.01; now what payments have you got charged up to him there in August; he seems to have drawn two checks according to his check book in August.

A. There is a payment for salaries \$833.33.

Q. What date have you got that on?

A. That is entered under date of August 31—I'll have to go back to the vouchers.

Q. Let it go at that, August 31.

A. Paid to the Commercial Trust Company six months' interest on first mortgage bonds \$25,400.

Q. Now that is \$26,233.33?

A. That is all that is charged against him; I mean that is all that is credited to him.

Q. There is \$18.04 somewhere, isn't there?

A. That is not credited to him. That is charged to him. That is interest on daily balances.

Q. That means that he received \$18.04?

A. He received \$18.04 from the bank as a credit to his account in the bank.

Q. That makes the balance just that much larger?

A. Yes, would make it \$18.04 larger in the bank.

Q. Now, what do you say you have his balance on the 31st day of August after the payment of these checks?

A. \$688.68.

4462 Q. I have it \$706.72; that of course would go into his September account, \$18.04, \$688.68?

A. That is what I have here.

Q. Then on the 1st day of September his balance here as he has it is correct \$26,922.01?

A. Yes.

Q. Out of that he paid these two items that you gave me \$25,400. for interest and \$833.33 for salaries which amounted to \$26,233.33

and left in his hands on the 31st day of August \$688.68. Now then what money did he receive if any during September and prior to the 15th according to your books?

A. During September to prior to the 15th?

Q. Yes.

A. I can only give you during September.

Q. Your books don't show any?

A. Yes, my books show, the ledger of the Des Moines Gas Company, No. 2 shows that he received \$77,107.50.

Q. That is on the 15th, I am talking about the time prior to that; there is nothing prior to that?

A. He also received \$18.04 entered under date September 30th. Now I will turn to the entries and see what I can find. This won't show the date of when that was received. That will show on his check book, and the voucher would show.

Q. Then if I have this right, Mr. Lillie had left in his hands after this sale of the bonds \$77,125.54.

A. I don't know whether you are right or not.

Q. I have added \$18.04 to the \$77,107.50, so that on the 15th day of September after the transaction, Mr. Lillie would stand charged with that amount, \$77,125.54.

A. Charged here under date of September 30th. I don't know what the exact date would be but some time prior to that.

4463 Q. Don't you think he has it right here on the 15th day of September?

A. If he has it entered that way, undoubtedly that would be correct. I was reading from the ledger account in the books of the Des Moines Gas Company and not from his book.

Q. It was September 15, was it not, that he received and noted on his check book the \$77,107.50?

A. That is correct.

Q. He had \$18.04 before he got that that should have been charged to him?

A. Yes, he had \$18.04, he had received \$18.04 under date of September 1st, and it was charged to him as a deposit on interest daily balance in August.

Q. In addition to that he had a little balance of \$688.68?

A. He had a balance on September 1, of \$688.68 as shown by our ledger account of the Des Moines Gas Company.

Q. So that when he made the transfer of the bonds then he stood charged with \$77,814.22, didn't he?

A. \$77,814.22 I think would be correct.

Q. \$77,814.22 now that is what he had in his hands when he got the bonds, and what was the very next thing that he paid out?

A. He paid out a check to the United Gas Improvement Company, six months' interest to September 1st on preferred stock contracts at six per cent.

Q. What is the date of that check?

A. September 15, \$14,222.67.

Q. What is the next?

A. The next amount of the check is \$63,236.41.

Q. Who was that payable to?

A. September 15, payable to the United Gas Improvement Company, amount paid pursuant to resolution adopted by the Board 8-15-10 on surrender for cancel of preferred stock contracts 13.307453 per cent of total amount outstanding \$474,089.20.

Q. Now give me the amount of the check?

A. \$63,089.20. Interest 9-1 to 15-10 at six per cent \$147.21. Total \$63,236.41.

Q. Now let us see what these two checks amount to.

A. \$77,459.08.

Q. So that we have finally worked out, have we not, from Mr. Lillie's books that the entire amount that was received upon the sale of \$81,000 in bonds was paid to the U. G. I. and in addition thereto something like 250 odd dollars of the same balance that was left over from some other receipts?

A. The amount of all the retirement of the preferred stock contracts and interest and salaries was paid.

Q. There is no salaries in this?

A. I guess not in this item, but this amount of interest and retirement of the preferred stock contracts was paid among other things out of the proceeds of the sale of bonds.

Q. There is no among other things to it. Every cent of the money now that the treasurer claims to have received for the sale of these \$81,000 in bonds was immediately turned over, if he had the money to the United Gas Improvement Company to cancel preferred stock contracts and interest.

A. To pay interest and cancel preferred stock contracts.

Q. All of it?

A. Practically all of it.

Q. It was more than all of it?

A. Yes, I think more than all of it, because I don't think the sale of the bonds would have provided enough.

4465 Q. So that the sale of bonds you say was authorized by the officers of the Des Moines Company?

A. By the Board of the Des Moines Company.

Q. Which was made up of officers of the United Gas Improvement Company directing the sale of \$81,000 of these bonds to retire preferred stock contracts that were then held by the United Gas Improvement Company; is that correct?

A. No, I should not say they directed them for that purpose.

Q. You would not say that with this record before you?

A. I don't think it appears from this record.

Q. It wasn't intended to appear from this record?

A. Nor do I think this was essentially the purpose. The preferred stock contracts were retired when sufficient funds to retire these bonds were offered for sale and the treasurer was able to sell them to the United Gas Improvement Company at 95.

Q. Was you down there when this transaction took place?

A. I was not in the room when it took place.

Q. Were you consulted?

A. I was not asked to advise about it; I was informed about it.

Q. What was your relation to the Des Moines Gas Company at that time?

A. I was manager.

Q. Did you have any relation with the United Gas Improvement Company?

A. I did not.

Q. Well, now, when did you first know about this transaction; did you know about it the other day when you were on the witness stand?

A. Oh, yes; when the entries came through I did.

Q. You knew about it when I was inquiring of you early in this trial as to who held these bonds and who they were sold to and what was done with the money?

4466 A. I don't remember in regard to who held the bonds. I was not familiar with who purchased the bonds until I saw this check book of Mr. Lillie's, I had not that information.

Q. You are president of the Company now?

A. Yes.

Q. Where do you think the United Gas Improvement Company's officers, acting as officers of your Company, had any authority to use that money for that purpose and to use these bonds for that purpose?

Objected to on part of complainant as incompetent and calling for the conclusion of the witness.

A. This is a question of law you will have to argue with counsel.

Q. You think it is a question of law?

A. From the way you put it, I do. You put it to me as a question of law.

Q. No, sir; I do it to find out what you know about your own company. You know the authority your officers have for issuing bonds?

A. I presume that would be given them by virtue of the articles of incorporation and the by-laws of the company; I really am not familiar with that.

Q. Your counsel have introduced into this record for some purpose the other day a mortgage on this property here.

A. Yes.

Q. Securing and authorizing the issuance of bonds for a specific purpose?

A. Yes.

Q. You knew that, didn't you?

A. Yes.

Q. You have examined that mortgage carefully, haven't you?

A. Some time in the past, not recently.

Q. Is there any authority in that mortgage as you understand it for this sort of business?

4467 A. What business do you mean?

Q. Issuing these bonds under the direction of the officers of the U. G. I. Company who were also officers of the Des Moines Company, to be sold to the U. G. I. at a discount and the money to be turned over to the U. G. I. to take up stock contracts?

Objected to on part of complainant as incompetent, calling for the conclusion and opinion of the witness and not the best evidence.

A. Is there any authority in this mortgage—you refer to this mortgage shown in Exhibit 27?

Q. Is there any other mortgage except that one on your plant that you know of?

A. I am trying to answer your first question.

Q. I am referring to the only mortgage I know of that is on your plant.

A. Of course the bonds in the first place are not issued by the U. G. I. Company. They are issued by the Des Moines Gas Company. They could not be issued by the officers of the United Gas Improvement Company acting as such. That is correct, isn't it?

Q. Is that your answer?

A. To part of the question. Does your question go to whether these bonds could be issued by the officers of the Des Moines Gas Company?

Q. No.

A. Isn't that part of the question?

Q. They are already issued, as I understand it, it is simply a question of delivering them.

A. I am trying to answer your first question there, I don't think it is very specific.

4468 Q. If that is all the answer you are going to make, I will proceed.

A. If he will read the remainder of the question, I will try to answer it.

Q. Before we adjourn, Mr. Haines, I wish you would produce for me the two statements that you took out of this book and handed over to Mr. Douthirt and Mr. Douthirt handed them over to Mr. Ourran; I want all these matters with reference to this matter.

Judge CARR: Let the record show that Mr. Haines has handed to General Byers the papers called for.

Mr. BYERS: The defendants at this time in connection with this examination offer in evidence Defendant's Exhibit 56, the check book produced by the witness Haines with blank checks in it, of the First National Bank of Philadelphia, together with the stubs and entries therein.

At this time an adjournment was taken until 1:30 P. M.

4469

1:30 P. M., MONDAY, *October 2, 1911.*

JANSEN HAINES continued on direct examination — Hon. H. W. Byers, testified as follows:

Q. Now then a word further Mr. Haines about Exhibit 56. This morning in your testimony you referred to a check to the United Gas Improvement Company for \$63,236.41 as having been drawn pursuant to resolution of the board of date 8-15-10. Can you turn to the resolution please?

A. Yes. You say that was drawn pursuant to a resolution.

Q. Yes, of date 8-15-1910.

A. Here is the resolution on page 221 of the minute book No. 1 of the stockholders and directors of the Des Moines Gas Company.

Q. The record that you refer to Mr. Haines as authorizing the payment by the treasurer of the amount of \$63,236.41 is found on what page or pages of Exhibit 27 the minute book of the director's meeting, it is more than one page is it not?

A. In order to complete this authority you would have to properly refer to page 27 of this minute book and then refer to page 217 w18, 219, 220 and 221 of the exhibit 27.

Q. There is nothing in this refers to page 27 is there?

A. No, but page 28 would have to be taken in connection with these in explaining this transaction.

Q. Is the mortgage part of it.

A. That is the mortgage. I can read this if you wish this record.

Q. I don't care about having it read unless you haven't anything else to do. Is that all the record there is that you know of that covers this transaction?

A. Why no.

4470 Q. I mean as far as the authorizing of the sale of the bonds and the application of the money is concerned. That is all I have in mind at the present time.

A. I think that is all. The is all I have in mind.

Q. Now I wish just for the purpose of getting some information here with reference to the manner in which this record is kept, I find under date of October 13, Mr. Lilley's memorandum on the back of one of his stubs October 17, deposit \$5,000, can you tell me what that was?

A. That is October 17, 1910, that is an entry in his check book as October 17, 1910, deposit \$5,000 and was a remittance of \$5,000 made by me from Des Moines by draft drawn on one of the local banks payable to Louis Lilley treasurer and accompanied by voucher as shown on page 171 of the cash book No. 1 of the Des Moines Gas Co., the payment here was made under date of October 15.

Q. You don't mean payment do you, why do you use the word payment, remittance you mean I suppose?

A. Well what is the difference and payment.

Q. Well it might make some difference, depends on what it is.

A. A draft here drawn and entered under date October 15, the time going to Philadelphia would occupy until the 17th and the deposit was made by him on the 17th

Q. Then in other words the money was remitted from here on the 15th.

A. Yes.

Q. Received by him on the 17th?

A. Yes, sir.

Q. And that accounts for the difference in dates?

A. In the two dates.

Q. You used the term payment there, you mean remittance don't you?

A. I used the term payment and meant the date on which
4471 the check was drawn here for the draft as shown in the cash book.

Q. Didn't use the word payment with respect to the \$5,000 at all?

A. Yes; my check was drawn for \$5,000 jere, taken over to the bank and they gave me a draft for \$5,000 there payable to Louis Lilley Treasurer. That was forwarded to Louis Lilley, treasurer, under that date.

Q. That was money you had on hand that you were simply turning over to the treasurer of the company.

A. Certainly. Money that was on deposit here in the cash account and it was being turned over to him as treasurer of the Des Moines Gas Co., to deposit to his account as treasurer held in Philadelphia.

Q. Now on the 15th day of September, 1910, what was the balance of the Des Moines Gas Company in the books here? Mr. Haines we have waited a little over half an hour, can't you give us in round numbers something about it?

A. I would rather give it accurately.

Q. Does it take you that long to tell what your cash was on hand a given date. We have waited just a half hour now.

A. Of course General, I am not an expert bookkeeper, I would admit I am slow on this work. I am sorry for the delay.

Q. Haven't you any book that shows the cash balance on that day without taking half an hour to figure it out?

A. Of course our cash is balanced at the end of the month, when I balance the middle of the month I have to make the necessary credits and debits up to that period. We don't balance our books every day.

Q. Well give it to me in round numbers as near as you can?

A. The balance on hand, according to the cash book, page 168, is \$26,328.16.

COURT: Does that mean the balance here?

4472 A. That is the balance in Des Moines charged to the treasurer's account that would show on the treasurer's account.

Q. Now Mr. Haines we have covered the cancellation of the preferred stock contracts September 15, 1910. Now all of the stock contracts that have been cancelled and retired have been cancelled and retired in the same way have they not b- the sale of bonds and proceeds of the sale of bonds used to cancel the stock contracts. The first transaction of that kind if I understand this record here correctly being June 1, 1908, amounting to \$109,620. And I

right about that? And the next was on March 15th, 1909, and is shown in this check book as \$83,000.

A. \$108,000 for the preferred stock contracts and the balance for interest.

Q. That was paid by the proceeds of bonds sold on the same day to the U. G. I. for \$110,412.50 was it not? The stub check refers to the date of the transaction or authority to dispose of the bonds as of May 20, 1908.

A. Yes, I have the minutes of the directors' meeting under date of May 20, on page 135 of the minute book Exhibit 27.

Q. So that that payment was made out of the proceeds of the sale of these bonds?

A. I will read the method of making that payment so that it can be thoroughly explained.

Q. Well if there is anything different there.

A. I think there is a great difference between the way in which you state it and the way stated here if you will pardon my saying so. The record of the directors' meeting on May 20, 1908, reads as follows on page 135 of Exhibit 27: Sale of \$121,000 worth of treasury bonds. The treasurer advised the board that he could
4473 sell at 90 and interest the \$121,000 of the company's first mortgage five's received from the trustee under the company's mortgage of March 1, 1906, on account of expenditures to December 31, 1907, for additions, extensions and betterments thus reimbursing the treasury for such expenditures to the extent of the proceeds of the bonds. The treasurer was authorized to sell the bonds. Preferred stock contracts, \$108,000 retired. The treasurer advised the board that when the treasury is reimbursed by the sale of bonds as authorized by this meeting there will be cash available which may properly be applied to the purpose sufficient to enable the company to relieve and discharge itself in part say to the extent of 13½ per cent or 1,080 shares or \$108,000 from the obligation of the contracts provided the holders will waive certain conditions of the contracts. The following was then unanimously adopted: Whereas, this company has issued and outstanding its so called preferred stock contracts entitling the holders thereof to a total of \$8,000 shares of the par value of \$100 each or \$800,000 of preferred capital stock for which certificates in due form are to be issued on surrender of the contracts whenever the company shall be authorized by law to issue such preferred stock and the holders of the contract shall demand the same and the company is in the meantime pledged to pay interest at the rate of six per cent per annum upon a sum equal to the face value of the shares mentioned in the contracts, which interest has been paid to February 29, 1908. And whereas it is provided in the contracts that having previously given thirty days' notice in writing to the holders by mailing the same to their last post office address on its books, the company may on any 15th day of September or any 15th day of March at its option relieve and discharge itself in whole or in
4474 part from the obligations of the contracts upon paying to the holders cash at the rate of \$100 per share for the preferred stock therein mentioned or such parts thereof as the company may elect, provided that in making such payment the company shall

treat the holders of all similar contracts then outstanding alike, that is to say the company will also on the same date make payment of the same relative sums to the holders of all contracts then outstanding. And whereas, the company now has cash available and which it may properly apply to the purpose, sufficient in amount to relieve and discharge itself in part namely to the extent of $13\frac{1}{2}$ per cent or 1,080 shares or \$108,000 from the obligations of such contracts provided that upon payment of interest at six per cent from March 1, 1908, to date when paid, the holders thereof will waive the above mentioned provisions of the same which permit the company's relief and discharge first, only on thirty days' notice in writing by mail and second, only on March 15 or September 15th in any year, such thirty days' notice having previously been given, and will on or before June 1, 1908, surrender contracts for cancellation as hereinafter provided now, therefore resolved that in order to relieve and discharge the company in part from the obligations of such contracts, namely to the extent of $13\frac{1}{2}$ per cent or 1,080 shares or \$108,000 the treasurer be authorized and directed to pay to the holders cash to the amount of \$108,000 plus interest thereon at the rate of six per cent per annum from March 1, 1908, to date when paid on surrender to the treasurer for cancellation the contracts representing $13\frac{1}{2}$ per cent of the total outstanding amount thereof or 1,080 shares or \$108,000 provided same shall be so surrendered on or before said June 1, 1908.

Q. That is the first payment of preferred stock contracts is it that you know anything about?

4475 A. That is the first retirement of the preferred contracts that I know of from the books.

Q. Now to go back where we started from when we drifted into this check book business, you were going to prove by the check book that the money was actually received by Mr. Lilley? I find here part of Exhibit 56, this journal entry, and we started on the question of property purchased first. Now I notice there was \$157.50 accrued interest on those bonds. That would mean I suppose that the bonds date from the first of the month, but they were not turned over or sold until the 15th of the month so there was half a month's interest accrued on them. Is that what that means?

A. Defendant's exhibit 55 states as follows—

Q. I have not asked what it stated, I want to know if that interest is accrued interest on the bonds from the first of the month until the 15th of the month?

A. Well it states in the journal entry here for \$81,000 par value of this company's first mortgage five per cent 20 year gold bonds Nos. 1017 to 1097 both inclusive, of \$1,000 each with March 1, 1911 and all subsequent coupons attached sold by the treasurer at this date for cash at 95 and accrued interest (September 1, 1910 to September 15, 1910, or fourteen days at five per cent equals \$157.50.

Q. Now does that mean that bonds representing a valuation of \$81,157 were sold to the United Gas Improvement Company for \$77,107.50, is that the way you understand it? If you don't know without running down the books I will withdraw the question.

A. I will just read you the statement in here, this entry is part of Exhibit 55, and reads as follows: Des Moines Gas Company Journal Entry September 15, 1910. Sundries. Treasurer \$77,107.50, property purchased \$4,050. Treasury bonds \$81,000, accrued interest on bonds \$157.50. For \$81,000 par value of this company's first mortgage five per cent 20 year gold bonds Nos. 1017 to 1097 both inclusive, of \$1,000 each with March 1, 1911, and all subsequent coupons attached sold by the treasury at this date for cash at 95 and accrued interest (September 1, 1910, to September 15, 1910 or fourteen days at five per cent equals \$157.50.)

Q. That property purchased \$4,050 is made up of the discount, five per cent discount and this \$157.00 interest isn't it?

A. The property purchased does not include the accrued interest on the bonds, it is discount on the bonds. That is five per cent of \$81,000 worth of bonds. The treasury would receive the accrued interest on the bonds under the terms of this sale. I think I am correct about that.

Q. Just a straight five per cent discount the way you understand it, the discount that was actually taken?

A. The discount actually taken off the bonds was a straight five per cent discount on the par value of the bonds and the accrued interest was paid by the purchaser of the bonds.

Q. How many of these bonds are still outstanding or these contracts are still outstanding at this time?

A. You asked me that the other day with some other questions. Do you want me to answer the rest of these questions now.

Q. No, I will just take this one now.

A. No you asked me the amount paid for redemption of stock contracts according to this memorandum. That has all been testified to by one of your own witnesses I think, Mr. Hall.

Q. Oh no, Mr. Hall Mr. Hall didn't testify to the still outstanding, if he did I don't remember it at all.

A. Refer to Mr. Hall's report Exhibit "A" page 2, I think you will find it. No, I have got the wrong reference. Try Mr. Hall's 4477 report page 27 December 31, 1910, preferred stock contracts \$411,000.

Q. That is not the question I asked you now, I am asking you what of these stock contracts that are still outstanding, there have been payments since that.

A. I will look at the books and tell you, I don't keep the books in my head you know.

Q. I give you two statements the report has marked defendant's Exhibit 57 and 28.

A. There have been no payments on our books here as having been made since December 31, 1910, as yet.

Mr. BYERS: Defendants at this time offer and read into the record defendant's Exhibit 56, under date June 1, 1908, deposit U. G. I. proceeds sale 121 par bonds at 90 eq-al \$108,900. Interest 3-1 to 6-1 at five per cent \$1,512.50. Total \$110,412.50. On the opposite page in the same book under check stub No. 40 June 1, 1908 W. H. Marshall, United Gas Improvement Company amount paid pursuant to resolution adopted by board at meeting held May 20, 1908,

on surrender for cancellation of preferred stock contracts representing $13\frac{1}{2}$ per cent of total outstanding amount thereof or 1080 shares or \$108,000 interest from March 1, to June 1, three months at six per cent \$1,620, total \$109,620 check to order U. G. I. Co. From the same exhibit under date March 15, the entry deposit proceeds sale of 41,000 par five per cent bonds to U. G. I., \$41,489.44. On the opposite page of the same exhibit upon stub check No. 47 March 15, 1909, the United Gas Improvement Co., amount to pay off preferred stock contracts amounting to \$103,800, 1038 shares at 100 par, \$83,000. From the same exhibit under October 25, 1909, deposit U. G. I. Co., proceeds sale of 64,000 bonds at 95, \$60,447.80, interest 9-1 to 10-25, one month twenty four days, five per cent \$480, bonds numbered 953 to 1060 inclusive, total \$61,280. On the opposite page under same date October 25, 1909 on the stub check No. 52 the United Gas Improvement Co., amount paid pursuant to resolution by board of directors 10-20-09, on surrender for cancellation of preferred stock contracts 19.4 per cent of total outstanding amount thereof, \$588,200 or \$114,110.80, interest from 9-1 to 1-25-09 at 6 per cent \$1,027, total \$115,137.80. From the same Exhibit under date of September 15, 1911, deposit U. G. I. Co., proceeds sale of \$92,000 par of bonds 95, equal \$87,400 accrued interest 9-1 to 9-15, fourteen days at five per cent \$178.89, Nos. 1098 to 1189, inclusive. On the opposite page of the same Exhibit under same date, stub of check No. 91, United Gas Improvement Company, amount paid pursuant to resolution adopted by board 8-28-11, on surrender for cancellation preferred stock contract \$75,000 interest 9-1-11 to 9-15, six per cent \$175. Total \$75,175.

Mr. BYERS: Defendants offer and read into the record Defendant's Exhibit No. 57. Form No. 222. Des Moines Gas Company Des Moines, Iowa. To the United Gas Improvement Company. Order. Date September 15, 1911. For amount paid pursuant to resolution adopted by board of directors August 28, 1911, on surrender for cancellation of preferred stock contracts, 18.2482 per cent of 411,000 or 75,000. Interest from September 1-11, to September 15-11 on 75,000 at six per cent \$175.00. Total, \$75,175. Paid by check dated September 15, 1911, No. 91. Endorsed received September 15, 1911, from Des Moines Gas Company, \$75,175 in full for above bill. \$75,175. The United Gas Improvement Company, James Ball, Assistant Treasurer.

Mr. BYERS: Defendant also offers defendant's exhibit No. 4479 58 and same is read into the record and shows payment of six months interest on preferred stock contracts \$411,000 at six per cent amounting to \$12,330. Endorsed under date September 15, 1911, as having been received from the Des Moines Gas Company by the United Gas Improvement Company through James Ball Assistant treasurer, the Exhibits being made out in duplicate.

Q. These forms, Mr. Haines, are they made up and prepared here or in Philadelphia?

A. What forms do you mean?

Q. From which this statement Exhibit 58 appears.

A. Exhibit No. 58 is made out by the treasurer, Mr. Lilley in

Philadelphia as stating his transaction and the authority for it in connection with the purchase of the preferred stock contracts and expenditures of the money therefor.

Q. The forms are made out there, they are not made out here, you don't have them here?

— Oh no, they are not made out here. It is part of his duty.

Q. To go back just a moment where we were yesterday when we started on this business, I had gone through 1907 down to Mr. Harrison, we had got down to the item of \$356.55 of the total of \$2,365.13 that I was inquiring about and you had explained the item as representing two charges in two separate months for some auditing Mr. Harrison did for the company. Now the next item that I want to inquire about was of W. N. Porter. \$362. Is that a similar charge to the Harrison one for a similar purpose?

A. Mr. Porter and Mr. Harrison are two auditors or accountants who are employed by the United Gas Improvement Company, but when detailed to do work for the Des Moines Gas Company their time and expense is charged to the Des Moines Gas Company 4480 just the same as if the Des Moines Gas Company employed a regular auditing firm to audit their accounts, that is the accounts locally in Des Moines and check up the funds and stores on hand, the consumers' accounts as is generally done in any large company and on which the management generally insists for its protection shall be done periodically.

Q. That is not quite an answer to the question, it may be for you perhaps, not to me. I simply asked you is Mr. Porter in the same class and was his service similar to Harrison's?

A. I think my answer covers an answer to the question.

Q. I simply want to know if Mr. Porter, his services were similar to Harrison's and his coming here came about in much the same way.

A. I just stated Mr. Porter and Mr. Harrison came here and I state how and why they came here and if I could answer further I would be glad to do it.

Q. Mr. Porter came here without notice to you?

A. Mr. Porter and Mr. Harrison came here in the same way.

Q. Without any request from anybody here?

A. They came without any request here as to time, but I should insist upon their coming here during the year and checking up the work that is done under my responsibility and supervision for my own protection.

Q. Mr. Porter was sent here in the same way Mr. Harrison was, I mean in the same general way.

A. They came here together just as stated.

Q. In this \$2,365.13 credit to the U. G. I., for the year ending the 28th of February, 1907, I notice an item of special fitting material and inspection, \$7,494.50. Now what is covered by that item 4481 fittings? further than what is stated there. What were those special

A. You state in your question that in this item of \$2,365 there is an item of \$7,400. What do you mean by that?

Q. In this column you have furnished me showing the total credit to the U. G. I. for the year 1907, I was mistaken when I said it was included in the item of \$2,300, it is not included in that item but it is in the account. I want to know what is covered by the \$7,494.50. It says inspection special fittings and material.

A. The first item which is included in the \$7,494.50 credit to the United Gas improvement company for special fittings, material and inspection furnished in 1907 as shown on analysis of account with United Gas Improvement Company March 1, 1906, to December 31, 1910, is as follows: Page 152 of voucher book No. 1, February 27, 1906, 150 pieces of six inch pipe 68,600 pounds at \$31.45 per net ton, \$1,078.91 less credit memorandum under date of 3-2-'06 allowance for overcharge of 600 pounds on car C. C. 38,585 as per invoice No. 5005 at \$31.45 per net ton \$9.43, net amount being \$1,069.48.

Q. That you say was pipe?

A. That was six inch pipe. Next item page 153 same voucher book.

Q. Before you leave that. Pipe that was sold by the U. G. I. to the Des Moines Gas Company?

A. That was pipe which was furnished by the United States Cast Iron Pipe and foundry company and billed by them to the United Gas Improvement Company. The United Gas Improvement Company then made out a voucher in favor of the United States Cast Iron Pipe and foundry company giving the data which I have just read and sent it to Des Moines to be compared with the way bills when the pipe was received and after the pipe was received here as stated in this voucher the voucher was approved by me and 4482 copied on our voucher book, entered on our books as a credit to the U. G. I. and returned to the U. G. I. for payment.

Q. The item you have just read of pipe was pipe purchased by the U. G. I. from the United States Cast Iron Pipe and foundry Company?

A. United Cast Iron Pipe & Foundry Co., 71 Broadway, N. Y.

Q. And shipped directly to the Des Moines Gas Company and voucher sent here to be checked up upon the arrival of the pipe and if it checked then credit was to be given to the U. G. I.

A. Yes, sir. It was just the same as if you wrote a friend of yours in New York to send you a box of cigars of special brand and that friend bought the box and told the store to send them to you and bill them to him and he sent the bill to you so that you could check when the box arrived and return to him for payment and then you gave him credit on your account for the cigars as received, that is the process?

Q. Did you order the pipe?

A. Did I order the pipe from here? Certainly. Do you want the order for that?

Q. Who did you send the order to?

A. Mr. Pearson.

Q. Of the U. G. I.

A. Yes, Pearson purchasing Agent of the Des Moines Gas Company of course when on the Des Moines Gas Company work.

Q. Instead of buying it for you he bought it for the U. G. I.

A. Bought for account of the U. G. I., but for use of the Des Moines Gas Company.

Q. Now the next item?

A. Do you want me to get my order to Mr. Pearson for the 4483 pipe *for the pipe* and his confirmation——

Q. If I do I will ask for it. What is the next item?

A. Under date February 2, 1906, one barrel H. B. Engine oil 52 gallons at 20¼ cents \$10.53 less one per cent for cash in ten days 11 cents net amount \$10.42.

Q. Is the United Gas Improvement Company, or is that another cigar case.

A. That was another cigar case. That was bought from Trew, Levich & Company and shipped by them to the Des Moines Gas Company and billed by them to the United Gas Improvement Company. All these items the same process.

Q. Give us the next item?

A. The next item February 21, 1906, this was purchased from N. Z. Graves & Company, 55 gallons case black enamel at \$2.00 a gallon \$50 less one per cent cash ten days 50 cents, \$49.50 total.

Q. That is another cigar transaction where they furnished the U. G. I. Company or they purchased and had the material billed here and you checked it up and gave them, the U. G. I. credit for it, is that right?

A. Well had the material shipped to Des Moines and the bill sent to the U. G. I. and then the U. G. I. Forwarded the bill to us for checking on receipt of the material to prove correctness, then we checked the bill, the voucher was entered on our books and returned to the U. G. I.

Q. They did the paying at that end?

A. Yes, they did the paying because we didn't have the money.

Q. But they did?

A. They had money to pay these bills, certainly.

Q. What is the next item?

4484 Q. You see they took advantage of the one per cent cash discount.

Q. There was a little something in that besides just a friendly matter.

A. You will notice they got all these cash discounts which they have and they are allowed to the Des Moines Gas Company so that we got the benefit of the advance in money which they made to the extent of one per cent for cash in ten days.

Q. They did take the discount?

A. They took the discount and gave it to us. You understand me?

Q. I understand you thoroughly. What is the next item.

A. In other words the Des Moines Gas Company got the benefit of the discount, that is what I mean. The next item is Cornell and

Henley, No. 43 Arch street, N. Y. This is for pipe, February 13, 1906.

Q. What kind of pipe.

A. Three hundred plugs three fourths inch at 3 cents \$9.00 less 80 and five per cent discount \$7.29 total of that item \$1.71. 2000 maleable street L's one inch 1390 pounds D at 13 cents \$180.70 less 45, 5.5 and 5 per cent \$95.49, total of that item \$85.21. 420 nipples, three quarter inch at 9 cents \$37.80, 30 nipples 1¼ by short at 11 cents, \$3.30, 30 1¼ by 3½ nipples at 17 cents, \$5.10, 66 galvanized nipples by ¾ by short at 8 cents \$5.28, total of this item, \$51.48. Less 85 and 15 per cent discount, \$44.91. Total of this item \$6.57; total of all items \$93.49. Less two per cent for cash in ten days \$1.87 total net amount of bill \$91.62.

Q. That is a similar transaction to the ones just preceeding.

A. One similar to those transactions.

4485 Q. That would be true of all the \$7,495.54.

A. No. I don't think that is true of all of them. I better read the ones it is true of and leave the others afterwards because there is a change if you want all of them. The next is Welsbach Company 68 Wabash Avenue Chicago, Ill., February 1906, No. 61 lights 197 and A. P. mantles No. 432 opal globes, No. 310 cylinders at 52.50 per hundred \$13.13 less ten per cent \$1.31 total of this item \$11.82 less two per cent cash ten days 24 cents, total \$11.58.

Q. What is the book you are reading from?

A. This is a pressed copy book in which these vouchers were copied at the time they were sent to Des Moines.

Q. Where are the vouchers now?

A. I don't know where they would be. This is a press copy of them.

Q. Is there anything in this item of \$7,494.50 that is different from the ones you have read and procured in any different way?

A. Oh yes, I told you there was some more down here that was different from these.

Q. Different, how do you mean, not the same kind of material and purchased the same way?

A. I can go over this, what I gave you is the second, the third and the fourth—

Court: They all go through the same channel don't they?

A. They go through it in a different method of bookkeeping, however. The items shown on page- 152, 153, 154, 157-A, 157-B, 158-A 158-B, 159-A 159-B 16- 16-B 161-A, 162, 164, 165-A, 165-B are all handled in the way I have described. Now after that there were some more items. Then follows the item of inspection of 6, 8 and 1 inch pipe, \$117.75.

Q. Now what does that mean?

4486 A. That is the cost of inspection at the foundry as the pipe is being made of the 8, 12 and 16 inch pipe specified in the bill of the United Gas Improvement Company dated Philadelphia, Pa., March 17, '06, and reads as follows: Des Moines Gas Company Des Moines, Iowa, to the United Gas Improvement Company Dr., Broad and Arch Streets, to cost of inspection of materail

shipped from the foundry of the U. S. Cast Iron Pipe & Foundry Company from January 27 to February 24, '06 at 40.68 cents per gross ton, 8 inch pipe 129,154 pounds 12 inch pipe 235,015 pounds six inch pipe, 284,236 pounds total 648,405 pounds \$117.75 account store room.

Q. That \$117.75 is for inspecting that pipe?

A. The United Gas Improvement Company employs inspectors at the principal foundries and at the places where brass fittings and brass cocks are made to inspect the material as it is being made, that is they take the pipe as it comes from the foundry and sound it with a round head hammer when it is suspended in air to see it rings properly and has the proper strength, they see that it is weighed and the inspector writes the weights on each piece of pipe and write their number on each piece of pipe and have a number for the corresponding weight and a list of these numbers and corresponding weights are sent from them to Des Moines and are checked by the receiving store keeper when the pipe comes in. If they find a defective pipe it is rejected right there at the foundry and avoid the expense and delay of inspection here.

Q. That is to say the United Gas Improvement Company has inspectors at the different foundries where they are buying material for these numerous plants that they control and the cost of the inspection is divided up among the respective plants according to the amount of material sent to each place is that right?

A. The cost of the inspection is paid by the United Gas Improvement Company and is billed on the tonnage basis with the pipe divides into the total number of tons of pipe that is inspected, as this bill indicates so many pounds of pipe bears to so much at the rate of 40 cents a ton.

Q. \$117.00 that is charged there for inspection was on a very large order of pipe wasn't it?

A. About 324 tons. Pipe is inspected on the gross ton basis and shipped on the net ton basis.

Q. As I want to get at is the method. This iron for which this inspection was made was iron that the United Gas Improvement Company had ordered from some foundry and had been inspected by one of their men, is that right?

A. No,—let me see. This pipe—I can't tell you that whether ordered from the United Gas Improvement Company by the Des Moines Gas Company or whether ordered from the foundry by the Des Moines Gas Company, I would not have any way of knowing from this bill.

Q. You have no way of knowing anything about the inspection charge except the bill of the United Gas Improvement Company sent you?

A. Well as I have already carefully described to you, inspection reports from the inspectors come in very carefully made out in detail of just what they inspect. Some of these inspectors I know personally, meet them there at the foundries continually but I have not seen one of the inspectors at the work of inspecting and marking one of our own individuals pipes if that is what you mean?

Q. You pay no attention to it further than when you get the bill, whatever it is you credit it up to the U. G. I.

4488 A. When I receive a bill and check it myself I O. K. it and approve it and it goes to the credit of the U. G. I.

Q. And that is true of all these bills that come in that way?

A. Of course I had knowledge this pipe had been thoroughly inspected, had been inspected by competent men and that the price was not too high, if it had been an abnormal charge or had been anything irregular about the bill I should have refused to O. K. it for payment as I have done until I was satisfied that the items were correct and the amount was fair.

Q. Now you say you knew it had been inspected. Of course you mean by that that the U. G. I. mark was on the pipe and so you conclude it must have been inspected by somebody?

A. I don't know of any U. G. I. mark on the pipe.

Q. I thought you said a moment ago where they inspected—

A. No, I said the inspector placed an inspector's mark which is a mark of the individual inspector so if there should be any defect in the pipe it can be traced back to the individual inspector.

Q. He can be held responsible?

A. Yes, sir.

Q. The men who make inspection are employed by the U. G. I.

A. Employed by the U. G. I. But whose services when used for the benefit of the Des Moines Gas Company are so charged to them according to the tonnage inspected as I stated.

Q. That covers the inspection. Now is there any other item in there that is different from the two classes you have so far referred to. I want to cover this fully and then we won't need to go over the next three or four years.

A. Well I think you will find a great difference in the other years

I could not say that this applies to the other years. Take
4489 the next item of \$78 for bray burners included in this item of \$7,475.50, that is a bill for five gross of 8 foot H. B. bray burners, 10 gross 7 foot H. B. bray burners, five gross 6 foot bray burners which was treated the same as the inspection bill except that these burners are the burners which are used on the gas jets and which were purchased by Mr. Pearson for the Des Moines Company as purchasing agent on my order and shipped to me from the store house of the United Gas Improvement Company. They buy these burners in large quantities and get the advantage of the discount in that way and we get them at the net price which we pay for them. Another item here—those I think are generally descriptive of that class of items.

Q. I have been over the stationary and office supplies. He is an item of \$453.30 interest on open account. I suppose that represents interest on balances due the U. G. I. on their open accounts.

A. Interest on open account, that is when the United Gas Improvement Company was furnishing the money for these purchases, in other words advancing money to the Des Moines Gas Company for this material furnished there was a charge made to their open account on the average daily balance of the month at the rate of six per cent

and they were credited with interest at the end of each month, during this period.

Q. That is what that item represents.

A. That is what that item in 1907 represents. In November 1907, I think it was November, 1907, that system was changed so you get into another method of keeping the account after that date.

Q. We will come to that later. A little further down on the page is an item of draftsmen, \$182.26. Just in a general way tell 4490 us what that is?

A. That is the time of the draftsman in the United Gas Improvement Company's drafting department where they are making drawings of the property or so on under the direction of the engineer in charge.

Q. Now a little further down on the page is telegrams sent prepaid \$34.03. I suppose that represents the expense of messages they sent to you and prepaid them during the year, I suppose it represents just what it says.

A. I will give you the classification of that expense general and then see if that is an answer to your question. It is expense of telegram during the year which were sent prepaid and a record kept as they were addressed to this office to the office here they were charged to expense general because they were small items too small to be classified to individual accounts. Classification of expense general in this account is anything charged to expense not specifically chargeable to any other account.

Q. \$46,000 cash, that is I suppose money that was advanced to the company for its use, advanced by the U. G. I.

A. That is money advanced by the U. G. I. for extensions and improvements.

Q. There is one other item on this first sheet I want to inquire about and I think that covers it as well as I care to, that is the item of \$90 that is distributed out of the miscellaneous charged at \$98.24 in advance insurance column, part of the miscellaneous charge of \$98.24.

A. That is a bill as follows: Philadelphia, Pa., December 28, 1906, Des Moines Gas Company Des Moines, Iowa, to the United Gas Improvement Co., debtor, Broad and Arch streets, 4491 Boilers' insurance on schedule boiler No. 48032, Hartford Steam Boiler Inspection Company for the period of three years November 1, 1906, to November 1, 1909, viz: No. 1, 2 and 3, three boilers at \$30 per boiler, \$90. Account of advance insurance.

Q. That is to say the U. G. I. insured your three boilers, paid \$90 for it and you gave them credit.

A. No, sir; that is not correct. The Hartford Insurance Company insured the boilers and sent the bill to the United Gas Improvement Company and we gave them credit for it on our books.

Q. Then the United Gas Improvements Company had the boilers insured, paid the \$90 and you gave them credit on the books here upon receipt of their statement or bill?

A. No, sir; that is not correct. The Des Moines Gas Company

had the boilers *insurance* and the United Gas Improvement Company advanced the money to pay the bill.

Q. Is that right?

A. Exactly right. You want to see the policies of insurance; they will show in whose favor the policy is made out.

Q. I have no doubt the policies are made out to the Des Moines Gas Company?

A. Then how is the United Gas Improvement Company going to be the beneficiary?

Q. The business was done by the United Gas Improvement Company at any rate the money paid.

A. The bill was paid by the United Gas Improvement Company and we gave them credit on our books for paying the bill.

Q. That was another cigar and friendly deal?

4492 A. That is a little different from that. As I explained to you there was a change in the system in the latter part of the year 1906 in the method of handling these payments.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

4493

Tuesday Forenoon Session.

OCTOBER 3, 1911—at 9.30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JANSEN HAINES, continuing his direct examination, examined by Hon. H. W. Byers, testified:

Q. Mr. Haines, who is Mr. C. W. Hare?

A. Mr. C. W. Hare is employed by the United Gas Improvement Company as an expert in matters pertaining to the organization, development, promotion of the sales of gas and appliances for the consumption of gas, and is the head of the department which is organized for that purpose. When his services are demanded by the Des Moines Gas Company——

Q. I have not asked you about that; I just wanted to know who he is——

A. That is what I am trying to tell you——

Q. I want to suggest that it is entirely improper for you to pad this record with your voluntary statements; just answer the question and we will get along with less confusion.

A. I was just telling you who he was; I had not finished.

Judge CARR: *Ho* on and complete your answer.

A. In his position as head of this sales department, when his services are demanded——

Mr. BYERS: I submit, your honor, I have not asked a thing about that.

The MASTER: He has not asked about that. He wants to know who he is.

Q. Who is Mr. J. B. Klumb?

A. Mr. J. B. Klumb is an engineer, a graduate of the Stephens
4494 Institute of Technology, who has been engaged in the operation and construction and investigation of gas works and questions pertaining to the gas industry since, I think, 1903.

Q. And in whose employ is he; who is he working for generally?

A. He has been employed by a number of gas companies and is now in the employ of the United Gas Improvement Company of Philadelphia.

Q. Who is Mr. W. H. Marshall, whose name appears on this tabulation you gave me. Is he the same Marshall that has been referred to heretofore—I asked you whether he had been in Des Moines—name appears on the last page?

A. Yes.

Q. And Mr. C. M. Benedict, who is he?

A. Mr. C. M. Benedict is an expert in the organization of new business forces and in the question of costs and results to be obtained by an organized force of new business men.

Q. In the employ of the United Gas Improvement Company?

A. He is not in the employ of the United Gas Improvement Company now. He is in the employ of the Charleston Railway & Light Company, I believe.

Q. Was he in 1910?

A. He was at one time, about that time I think it was; I am not sure about the date.

Q. J. F. Wholley, who is he?

A. J. F. Wholley is an expert the design and construction of industrial appliances, that is, appliances for the use of gas for manufacturing purposes, such as heaters, boilers, welding apparatus and things of that kind.

Q. In the employ of the United Gas Improvement Company?

A. Yes, sir.

Q. And H. C. Stahler?

A. Stahler is an expert in the domestic use of gas.

4495 Q. And in the employ of the United Gas Improvement Company?

A. And in the employ of the United Gas Improvement Company.

Q. E. M. Colquhoun, who is he?

A. Mr. Colquhoun is an expert in the designing and construction of gas ranges; and also in the question of cost as compared—not as compared—with the cost of the services rendered the consumers in connection with the supply of gas.

Q. And is he in the employ of the United Gas Improvement Company?

A. He is a part of the new business staff of the United Gas Improvement Company.

Q. Mr. A. B. Wainwright?

A. Mr. A. B. Wainwright was for a few months during that year employed with the staff of the new business department of the United Gas Improvement Company. He is a graduate engineer.

Q. He was on that staff at the time he was here?

A. He was on that staff at the time he was here. He was detailed here for work in Des Moines for the Des Moines Gas Company and the Company paid for his time and expenses while in this service.

Q. Now C. S. Jackson?

A. C. S. Jackson is auditor.

Q. Is his work similar to Mr. Harrison's?

A. Yes.

Q. And he is on the staff of the U. G. I.?

A. He is on the staff of the U. G. I. and especially detailed to work for the Des Moines Gas Company on this Exhibit G here.

Q. C. J. B. Dixon, who is he?

A. He is an auditor who worked with Mr. Jackson a part of the time when Mr. Jackson was making the audit.

Q. He is on the staff?

A. He is on the auditing staff of the United Gas Improvement Company, detailed for the service of the Des Moines Gas Company in making this special audit.

Q. There is an item here in the advertising department of \$890.02, just what was that; just tell me in a general way.

A. I cannot tell you off-hand; I haven't any recollection of these figures. (Mr. Curran produces papers for the witness). I am having a statement of that kind prepared for you, but I haven't it yet. I will give you the statement and the vouchers, or I can give you in a general way what the items are from this memoranda, which includes all the advertising for that year.

Q. All I care for is what it was; was it advertising matter sent here or was it some item of advertisement that was paid for by the United Gas Improvement Company, I simply want to know the character in a general way.

A. Here is one item on page 27 of the Journal, U. G. I. 17,650 gas bill stickers, \$31.03. Those stickers are advertising matter which the United Gas Improvement Company has printed in very large quantity and which I buy for the Des Moines Gas Company at the prices they pay for the whole quantity; in other words, at wholesale rates.

Q. In other words, they have a large quantity printed down there, not only for use for the Des Moines Gas Company, if they wish them, but for any of the other companies in which they are interested?

A. Yes, and if I want to use it I get what I want of them at the wholesale price they paid for them.

Q. That is a new departure, is it not; they haven't been doing that before until 1910, have they?

A. Oh, yes; they have been doing that for I suppose fifteen years.

Q. The reason I suggested that, I do not find any advertising in any of these other, at least I don't remember seeing it in any of these other lists. I don't care anything about it; I hadn't noticed it anywhere else.

A. I think, General, that probably occurred from the fact that the advertising in the earlier years was simply, in many cases, billed

direct from the advertising, and the form of the advertising was made up by the new staff and furnished to these printers and they furnished the stuff to the local company as ordered.

Q. Now that one item in a general way covers all of them, don't it?

A. I think it is the bulk of them; that same sort of thing.

Q. Now on this last sheet here I notice special fittings, material and inspection, \$160.94?

A. What column is that in?

Q. It is in the first column of the last sheet.

A. The \$82.88?

Q. No.

A. \$250.00?

Q. Yes, \$250.45, and I notice, or it seems to me, maybe I am not looking at it right, it may be stationery and office supplies, \$234.26 is carried into the advertising account; I wondered if that was?

A. That is the wrong line.

Q. That is stationery and office supplies?

A. Yes.

Q. That was in the nature of this advertising material too, advertising stationery, was it?

A. I will have to look up the vouchers.

Q. Oh, I don't care enough about it to do that.

A. Understand, there is a tremendous amount of detail getting this stuff out. I have been getting it out for you for three
4498 weeks I have gotten it out in such shape, that in most of the years I can show you the voucher, a sample of which was purchased.

Q. You have been making up this tabulated sheet for me, showing all of that class of items, or the class of items as they have been charged on the books and classified here on this sheet, as far as you know?

A. Well, let me answer that in my own way. This is an analysis of the account with the United Gas Improvement Company from March 1, 1906, to December 31, 1910, showing the item and the classification of the charges.

Q. And is a detailed statement covering all items that was on the sheet that I handed to you that Mr. Sangster made out, or the two sheets?

A. Well the sheet I have just referred to myself is a correct classification of these charges and all of them. Mr. Sangster has two omissions on his and has not the same classification.

Q. The way you have it is the way it was classified on the books.

A. The way it appears on the books of the Des Moines Gas Company.

Q. I hand you what has been marked in this case, Mr. Haines, Defendant's Exhibit 44 and ask you if that is—that booklet was printed in Philadelphia?

Objected to on part of complainant as being immaterial.

A. This book was printed by the Heilhecker Printing Company, of Des Moines.

Q. When was it printed, if you remember?

Complainant interposes same objection last made.

A. I will look up the vouchers and let you know.

Q. Who had these booklets printed?

Complainant interposes same objection last made.

A. The Des Moines Gas Company.

4499 Q. After they were printed, what did they do with them?

Complainant interposes same objection last made.

A. They were printed at my direction as a correct compilation and explanation of the correspondence between John MacVicar, Superintendent of Streets and Public Improvements, and myself and Mayor Hanna and the city council and myself, for the purpose of properly presenting this entire subject to the consumers of the Des Moines Gas Company in Des Moines, and were distributed by mail to the consumers as the names and addresses appeared on the books of the Des Moines Gas Company. Is that an answer to your question?

Q. About the last dozen words is. You had a great many of them printed, did you?

A. I think about 20,000, if I remember right.

Q. Did you have an authorization for their printing?

A. What form do you mean?

Q. Any form?

A. Advertising matter of this kind don't require an authorization under our system; not the same kind of authorization that is required for a street main extension or other improvement.

Q. What kind of authorization does it require?

A. Merely a confirmation of the action of the management.

Q. Did you get that?

A. Yes.

Q. Where did you get that?

A. I don't remember.

Q. Did you get it in the form of a letter?

A. No, not that I recall; I may have, but I don't remember.

Q. What form do you remember that you did get it in?

A. Now, I really don't remember, General.

4500 Q. Well, you mean you don't remember whether you got a written confirmation?

A. Probably not.

Q. Well who did you consult about it?

A. I consulted Mr. Douthirt about it at the time.

Q. Did Mr. Douthirt have something to do with making up the letters originally?

A. I consulted Mr. Douthirt about making up some of the correspondence, but not all of it.

Q. As to that first letter, you consulted Mr. Douthirt and the lawyers, both?

A. Certainly; you don't think I would write a letter of that kind without proper confirmation.

Q. Who else besides Mr. Douthirt and the attorneys did you consult about it?

A. I think that was all, except to get the proper figures.

Q. Now the first letter, as I remember, was written on the 22nd day of November?

A. Yes.

Q. Was Mr. Douthirt here at Des Moines at the time?

Objected to on part of complainant as a mere repetition, the witness having been interrogated when first on the stand by counsel as to writing that letter, when it was written and where it was written, the testimony showing fully in answer to the interrogatory put to him that the letter was written in Des Moines.

Mr. BYERS: If that was so. I wouldn't go another inch with this.

Judge CARR: I think I have a very distinct recollection of it, but I don't know whether Mr. Douthirt was here. You asked him where he wrote it and he said he wrote it in Des Moines.

4501 Mr. BYERS: I have not asked him anything about Mr.

Douthirt. I am only asking it now on account of the suggestion by the Master and counsel.

The MASTER: Of course, if these statements in there are ratified, it is not material. What the effect will be is another question.

Q. Now was Mr. Douthirt here in Des Moines at the time?

A. My recollection is that he was not; I am not sure whether he was or not. I wouldn't like to swear to that. I think not.

Q. Then you consulted him by telephone or wire, or how?

Objected to on part of complainant as being immaterial.

A. My recollection about that matter is, I think I met him in Chicago and discussed the matter with him there and brought back certain memoranda and data here and made some changes in the memoranda and data and wrote the letter in my office. I think that is the best of my recollection of it at the present time.

Q. The data and information that was furnished as a basis for the letter was made up then in Chicago?

A. That is not correct exactly. The data, of course, was not available in Chicago.

Q. Mr. Douthirt brought it with him?

A. The data was prepared in Des Moines from our books and was taken up there and gone over.

Q. Was the same process gone through with as to the letter of November 26th?

A. I really don't remember, General. There were some of those letters for which I went to Chicago and consulted Mr. Douthirt with regard to some of the matters contained therein, and Judge Carr and Mr. Read. I wouldn't like to swear as to which was which. I paid no particular attention to it to bear it in mind or I would be glad to tell you.

4502 Q. In the letter of November 22nd I notice you stated that the average annual net earnings for the period referred to was \$188,369.65? From this sum there must be deducted for de-

preciation the sum of \$49,178.13. Then you follow with a statement, after stating it is ten per cent and so on, with this statement which you have printed in black caps, as we call them. This leaves, \$139,191.52 as the average annual net amount. Was that correct?

A. That large sheet that has already been offered in evidence here—I will produce it in a minute—I think that is one of Mr. Hall's exhibits.

Q. I just want to know whether you verified it at the time?

A. Certainly.

Q. And know it is correct?

A. Yes.

Q. That Brereton contract, have you found that for me?

A. I have not.

Q. Did you look up the minute record; it is in there, is it not? Is it copied in the minute record? I know there is some mention in there.

A. I think there is a minute of it in there somewhere. I think you referred to that the other day. I can answer one of your recent questions now. There is on complainant's Exhibit 28, I think the figures which check with the figures given November 22, 1910, as to the average annual net earnings for the period \$188,369.65.

Q. I did not ask you what there was in the exhibit, I just wanted to know if you had verified that at the time and knew it was correct?

A. I have that entry here in regard to the printing of these books. That was paid for on March 11, 1911, to the Heilhecker
4503 Printing Company.

Q. How is that?

A. Payment was made to the Heilhecker Printing Company for printing those books, Exhibit 44, on March 11, 1911.

Q. Where is this printing house?

A. I think it is in the Marquardt Building.

Q. Over on Locust?

A. Yes.

The MASTER: Have you answered that question as to whether that statement in the letter was correct?

A. Yes, sir.

Q. Now with respect to the Brereton contract that I have asked you about, I find on page 184 of Defendants' Exhibit 27, the following: Contract with W. H. Brereton. Approved the action of the officers in executing contract with W. H. Brereton for the erection of a meter house and foundation for the sum of \$1,385. Now that was the contract price for that meter house, was it?

A. I believe it was.

Q. And this record is made under date of October 20, 1909. Now I find also the following: Agreement with W. H. Brereton. Approved the action of the officers in signing an agreement with W. H. Brereton for the removal of the present generator house

wall and the building of a generator house at a cost of \$4,000. Is that the price paid to Mr. Brereton for the generator house?

A. I would have to look this up; I haven't got the figures before me. It was in that neighborhood. I don't recall exactly what was paid for it.

Q. This minute book is correct; that was the contract price?

A. That was the contract price for the work which was specified in the contract.

4504 Q. Now, just a word or two further along the line of these gentlemen that are employed in the business of the Company. How many of the United Gas Improvement Company men are on the pay roll of the Des Moines Gas Company?

A. Well, I cannot answer that off-hand. The only men whose services are paid for by the Des Moines Gas Company are subordinates who are sent here for certain specified work, to perform certain specified work for the Des Moines Gas Company, and the heads of the departments, the services of the heads of the department are not paid for by the Des Moines Gas Company, and as to the matter of time and expenses, the same as the subordinates are. But so far as the present goes, I would have to look that up.

Q. The United Gas Improvement Company are furnishing the gentlemen who are making this contest here in this case, and are paying them in the first instance, is it not?

A. That would only be true of some. Of course we had to go outside of the force of the United Gas Improvement Company and call in other consulting engineers, like Messrs. Baehr, Lea Randolph and Hagenah, for the purpose of assisting in this case.

Q. But the United Gas Improvement Company in the first instance are paying these men?

A. They are not; the Des Moines Gas Company is paying them. Their bills are rendered directly to the Des Moines Gas Company; the Des Moines Gas Company employed them and they have no connection with the United Gas Improvement Company whatever.

Q. The United Gas Improvement Company has already paid a large amount of the expenses of this case, haven't they, forty or fifty thousand dollars?

Objected to on part of the complainant as being immaterial.

A. No, that is not at all true; not true in any sense.

4505 Q. How far is it short of the truth?

A. It is short of the truth to this extent; that the Des Moines Gas Company has paid the time and expenses of the subordinate men who were sent here. It has paid the time and expenses of Messrs. Lea, Hagenah, Randolph, Mr. Almark, Mr. Cook, and all the witnesses that have testified in this case, except that what you say might have a shadow of truth in it in this way; some of the employes of the United Gas Improvement Company have been detailed to special work in Des Moines, and their time and expenses when in Des Moines, or when on the Des Moines work exclusively, has been billed to the Des Moines Gas Company and is being paid

for by the Des Moines Gas Company, just the same as they have employed these other experts.

Q. Do you know how much has been credited to the United Gas Improvement Company up to this time for services in this law suit?

Objected to on part of complainant as being immaterial.

A. I can very easily tell you by turning to the books.

Q. It won't take you but a minute, I wish you would.

Mr. BYERS: Let the record show that the defendants have had marked as Defendants' Exhibit 59 which is entitled "Analysis of Account with the United Gas Improvement Company March 1, 1906, to December 31, 1910," the Exhibit having been produced by the witness, Mr. Haines, and identified by him. This statement is made because there is some doubt or question at this time as to whether or not the same paper had been marked as an Exhibit heretofore in the record.

A. I have this account now, General.

Q. All right, give it to me. I don't care for the detail, just the amount.

4506 A. On page 243 of Ledger No. 3 of the Des Moines Gas Company under the United Gas Improvement Company account: January 31 there is credited \$211.99, referred to on page 197 of Journal No. 3 of the Des Moines Gas Company which is distributed as follows: January, time and expenses of H. S. Batten \$126.15—no that is wrong, strike that out, that is another account. Rate litigation expenses: 1-19 5 14x17 negatives at \$5=\$25. 5 14x17 prints at \$3. 30 16x20 prints, 90¢, \$27. 1-27. 219 large brown line prints, 8¢, \$17.52. 222 small brown line prints, 6¢, \$13.32. Total item \$80.34. Total of the two items on that page \$84.84. Now the next item is on February 28th on Ledger No. 3 page 243. The items are on Journal No. 3 page 213 as follows: January 27 mounting 5 photos, enlargements on muslin, 75¢. January 7, call to phone, H-4303, Chicago, Illinois, by Mr. Lewis Lillie, \$8.00. February 1, for labels, \$1. February 9, iron clamps 40¢. Cutting and retapping brass posts, drilling holes in strips 50¢; one drill and handle for same 49¢. Total of the items \$1.39. Expressage on package 30¢. Expressage on package to Jansen Haines, Des Moines, Iowa, \$1.40. For lunches during the month of February, 1911, \$24.50. February 3, 6 binders at \$3.25, \$19.50. This covers some of these documents and reports. I can go to the vouchers I presume—

Q. I don't care anything about it. In fact I don't care anything about the details.

A. I cannot give you the amounts without giving all the details.

Q. Go ahead and do it in your own way then. I am only asking for the amount though.

A. These amounts are split up and I have to give them to you in this way in order to get them correct. February 7, 500 sheets

of paper ruled, 2,000 sheets commercial bond, $8\frac{1}{4} \times 11$,
 4507 \$11.50. February 16, 4,000 commercial bond, $8\frac{1}{4} \times 11$,
 \$20.00. For time draftsmen, working on maps, January,
 nature of ground, \$2.00. Faving map, \$3.00. Checking miles of
 mains \$30.00; entering mains on street main map \$1.50. Total
 \$56.50. Correction of street main map \$1.25; entering mains on
 trunk main map \$3.50; entering mains for Des Moines map \$2.50.
 Total \$7.25—\$43.75. For services of stenographer 40 days, \$3.00
 a day, \$120.00. For telegrams sent prepaid during February,
 \$30.80. February expenses Messrs. Douthirt, Curran, Klump,
 Brodnax, Hemminger, \$608.20. February expenses of T. S. Genay,
 \$16.40. February expenses J. B. Klump \$135.98. Time and ex-
 penses of D. Cooley \$65.45, Same F. W. Downs, \$128.04. Same
 E. L. Hiser \$114.85. Same J. M. Harrison \$85.82. Same S. G.
 Elliott \$81.64. Same E. S. Olmstead \$104.50. Same W. Sturte-
 vant \$62.36. Same W. E. Oberly, draftsman, \$38.57.

Judge CARR: Can't we shorten that and isn't there some way to
 save time by getting the statement you had from these books cover-
 ing this matter?

Mr. BYERS: I have been trying to get nothing but the amounts.
 I have not cared anything about the detail.

Q. All I want from you, if you can tell me, without all that
 trouble of going through each account, in round numbers the
 amount of money that has already been credited up to the U. G.
 I. in this lawsuit, the money that they have paid out?

A. I couldn't tell you that at all without making a computation
 and going through the books, General. I do not keep the books
 in my head.

Q. Now, then, the memoranda that you have read so far from the
 Journal, where you have given the names of persons as being cred-
 ited with time and expense, those were U. G. I. men that
 4508 have been here during this trial, or getting ready for the
 trial?

A. They were men who are, I think most of them are men who
 are regularly employed by the U. G. I., but who have been detailed
 by that company to enter the service of the Des Moines Gas Com-
 pany for this purpose.

Q. During this lawsuit?

A. Yes.

Q. The U. G. I. pays them and sends a statement in the regular
 way here and you credit it up, the same as these other statements
 we have gone through?

A. No, that is only partly true. They send a bill for their time
 and expenses, whichever it happens to be and I pay that bill as a
 cash item, just the same as if I bought a wagon load of oats.

Q. The U. G. I. sends the bill and you pay the U. G. I. bill?

A. That is correct for all these statements I have read.

Q. One thing more, that I have not been able to find in Mr.
 Moul's testimony; maybe you can give it to us and that is the
 length of the high pressure main from the works to the city limit?

A. I couldn't give it to you off-hand.

Q. Does the map show this high pressure main?

A. Which map do you refer to, because some of them may? I can get that for you I think. That high pressure line extends to Sixty-third street and includes a branch on Fifty-first street, and is designed also to supply South Ninth Street.

Q. All I wanted now, if I could get it, the length of feet of that high pressure main.

The MASTER: It would be six miles long.

Mr. BYERS: Of course, if it went straight out we could tell.

Q. The high pressure main I am speaking about is the main that serves Valley Junction; I understand you have it branch off 4509 to serve some parts of west Des Moines, but not all high pressure main.

A. Yes, that main on Fifty-first Street is a high pressure main just the same as the six inch main on Grand Avenue.

The MASTER: My recollection is there is a governor out at Sixty-third street?

A. There is a governor in Valley Junction for all the consumers that come off of that system. This side of the governor in Valley Junction each one of them is provided with a house governor so as to reduce the pressure at the house to the pressure required for the burner.

The MASTER: The house governor is in Valley Junction?

A. No, it is in Des Moines. You cannot furnish this high pressure right up to the burners in the house. It is regulated to give it an even pressure at the burner.

The MASTER: That is at the end of each service?

A. It is at the end of each service where it enters the house.

Q. Now another matter I want to figure up if I can and that is in respect to the services, any part of the services here in Des Moines used now by the Des Moines Gas Company whether any part of them are owned by the consumers?

A. No.

Q. Were they at any time?

A. No.

Q. What was the original plan?

A. Not that I know of General; to the best of my knowledge they were not.

Q. Have you looked into that?

A. I looked into it some time ago.

Q. What method did you pursue to ascertain that fact?

4510 A. Well, I was unable to find any that were. Since I have been here they have always been the property of the Des Moines Gas Company.

Q. How was it under Colonel Pratt?

A. It was the same way under Colonel Pratt.

Q. You are sure about that?

A. I am sure to this extent, that I remember talking that ques-

tion over with Colonel Pratt when I came here, and I took that statement from him and I found nothing different on the books.

The MASTER: Did anyone ever claim to own their services?

A. No, sir.

Q. Now, about the oil, Mr. Haines, where is your oil shipped from, most of it?

A. I will have to get the vouchers to find out.

Q. You can tell in a general way?

A. It may either come from Sugar Creek or Whiting.

Q. It comes from one or the other of these two places?

A. Yes, I think that is optional with the shipper as long as he complies with the specifications as to the quality of the oil.

The MASTER: There is a pipe line to Chicago?

A. Yes, sir; there is a pipe line from Kansas City to Baltimore, and Oklahoma to Baltimore.

Q. Mr. Haines, did you bring in that check book?

A. I have the check book here which is marked Defendant's Exhibit 56.

Q. Have you got Defendant's Exhibit 55 there?

A. No. (The Exhibit is produced by Mr. Curran.)

Q. Mr. Haines, do you have more than one station meter?

A. In Des Moines?

Q. Yes.

4511 A. Yes, sir; we have three.

Q. Are they all set out in your inventory, all that you have?

A. If you can show me the inventory, I can tell.

Q. It is Exhibit 15.

A. (Witness refers to inventory). The station meters of the Des Moines Gas Company are shown in Complainant's Exhibit 15, on page 41. One 8' by 8' Goodwin meter with Hinman drum, 10 inch connections; one 8' by 7' 6" American meter with Hinman drum, installed in 1905.

Q. When was the other one installed?

A. The date is not shown on this page. And on page 120 of the same exhibit, one 14' by 14' station meter, Hinman drum, built by the American Meter Company, installed in 1909.

Q. Now that fixes the time when two of them were installed; when was the other one installed—it was before 1905?

A. It was before 1905, yes sir.

The MASTER: It was here when you came here?

A. Yes, sir; two of them were here when I came; only one was put in since I came.

The MASTER: The last one was installed in 1905?

A. In 1909. One in 1905 and one prior to 1905.

Mr. BYERS: The defendants at this time offer in evidence Exhibit 56, which was offered yesterday, but we would like to have the Exhibit number marked on the book itself. It is on the back of one of the stub checks. (Exhibit No. 56 is accordingly marked on the cover of the book.)

The defendants also offer in evidence that part of the record found on pages 184 and 185 of Defendant's Exhibit 27 which refers to the contract with W. H. Brereton and which has been identified by the witness Haines.

The defendants offer in evidence Defendant's Exhibit 48, produced and identified by the witness Haines and purports to be a statement of an account of Mr. A. B. Cummins with the United Gas Improvement Company and paid by the Des Moines Gas Company.

The defendants also offer in evidence Defendant's Exhibit 49, a similar account, gone over by the witness Haines, covering certain expenses of F. C. Morgan.

The defendants also offer in evidence Exhibit 50, a similar account covering the expenses of D. D. Rinehart.

Also Exhibit 51, a somewhat similar account, covering notary fees and affidavits.

Also Defendant's Exhibit 53, a similar account, covering the expenses of J. S. Harrison.

Also Defendant's Exhibit 54, a similar account covering the expenses of J. S. Harrison, all of them identified by the witness Haines and all read into the record.

Also offer in evidence Defendant's Exhibit 55 which is a letter from Mr. Haines to R. C. James, and a letter from James to Haines, and a book entry or journal entry covering the sale of \$81,000.00 bonds as testified to by the witness, which Exhibit is as follows:

4513

DEFENDANT'S EXHIBIT 55.

830-1-N.

September 22, 1910.
Entry.

OCTOBER 5, —0.

Mr. R. C. James, for Lewis Lillie, Treas., Philadelphia, Pa.

DEAR SIR: I beg to acknowledge receipt of your letter of above date, enclosing entry covering sale of \$81,000.00 par of Company's First Mortgage Five Per Cent Twenty Year Gold Bond-, which has been entered as of September 15, 1910.

Yours very truly,

— —, *Manager.*

830-1-N.

SEPTEMBER 29th, 1910.

Mr. Jansen Haines, Manager Des Moines Gas Company, Des Moines,
Iowa.

DEAR SIR: I send you herewith entry covering sale of \$81,000.00
par of this Company's First Mortgage Five Per Cent Twenty Year
Gold Bonds.

Very truly yours,

R. C. JAMES.

J. H. S.,

For Lewis Lillie, Treasurer.

J. E. 9-15-10.

I. E. M.

(Enclosure.)

4514

Des Moines Gas Company.

Journal Entry.

SEPTEMBER 15, 1910.

Sundries.

Sundries:

| | | |
|--------------------------------|-----------|-----------|
| Treasurer | 77,107.50 | |
| Property Purchased | 4,050.00 | |
| Treasury Bonds | | 81,000.00 |
| Accrued Interest on Bonds..... | | 157.50 |

For \$81,000 par of this Company's First Mortgage Five Cent
Twenty Year Gold Bonds, Nos. 1017 to 1097, both inclusive, of
\$1,000 each, with March 1st, 1911, and all subsequent coupons
attached, sold by the Treasurer this date for cash at 95 and accrued
interest (September 1st 1910 to September 15, 1910, or 14 days @
5% equals \$157.50.)

The defendants also offer and read in evidence the Defendant's
Exhibit 57, being a statement produced by Mr. Haines showing
the book entry covering cancellation of \$75,000 preferred stock
contracts as follows:

4515

DEFENDANT'S EXHIBIT No. 57.

10-2-11.

Des Moines Gas Company, Des Moines, Iowa, to the United Gas
Improvement Company.

Order No. —.

Date.

1911.

| | | |
|-----------|--|-------------------|
| Sept. 15. | For amount paid pursuant to resolution adopted by Board of Directors August 28, 1911, on surrender for cancellation of preferred stock contracts, 18,248% of \$411,000. or | \$75,000.00 |
| | Interest from September 1, 1911, to Septem- ber 15, 1911, on \$75,000 at 6%..... | 175.00 |
| | | <hr/> \$75,175.00 |

Paid by Check. Dated Sep. 15, 1911. No. 91.

Approved:

— — —

Correct:

— — —, *President.*— — —, *Ass't Treas.*

Payment Approved:

Correct:

— — —, *Purchasing Agent.*J.B., *Treasurer.*

Received Sept. 15, 1911, from Des Moines Gas Company, Seventy-five Thousand, one hundred, seventy-five & XX Dollars in full for above bill.

\$75,175.00.

UNITED GAS IMPROVEMENT CO.
JAMES BALL, *Ass't Treasurer.*

Defendants also offer and read into the record Exhibit 58, a similar book entry or statement for book entry covering the item of interest on \$411,000 preferred stock contracts, amount \$12,330.00, as follows:

4516

DEFENDANT'S EXHIBIT No. 58.

10-2-11.

Des Moines Gas Company, Des Moines, Iowa, to United Gas Improvement Co., Broad & Arch Sts., Phila., Pa.

Account.

Order Co.

Date.

1911.

| | | |
|-----------|---|--------------|
| Sept. 15. | Amount to pay six (6) months' interest to Sept. 1, 1911, on Preferred Stock Contracts of the Des Moines Gas Co., at the rate of six (6) per cent per annum... | \$411,000.00 |
| | \$411,000.00 @ 6%..... | \$12,330.00 |

Paid by Check, Dated Sep. 15, 1911, No. 90.

Accrued Int. on Preferred Stock Contracts.

Approved:

R. B. J.

Correct:

— — —, *President.*
— — —, *Ass't Treas.*

Correct:

— — —, *Purchasing Agent.*

Payment Approved:

J. B., *Ass't Treasurer.*

Received Sept. 15, 1911, from Des Moines Gas Company, Twelve Thousand Three Hundred and Thirty xx Dollars in Full for above bill.

\$12,330.00.

THE UNITED GAS IMPROVEMENT CO.
JAMES BALL, *Ass't Treasurer.*

4517 Defendants further offer in evidence Defendants' Exhibit 59, produced by the witness Haines as an analysis of the account with the United Gas Improvement Company from March 1, 1906, to December 31, 1910.

Q. Mr. Haines, there is one matter I thought I wouldn't say anything about, but I believe I would like to have it cleared up, if there is any way to clear it up, on your own account as well as mine. There is an exhibit here, a tax statement of 1911. I want to call

your attention Mr. Haines to this statement that you have already stated was a correct statement of the situation of the property and one that you signed and swore to in March this year. I want to call your attention to that statement of net earnings for last year and ask you if that is not wrong.

A. I don't understand your question in regard to the situation of the property.

Q. I am simply identifying the paper.

A. You mean defendants' Exhibit 47?

Q. Yes.

A. I think not.

Q. Last year would be 1910?

A. Yes, sir.

Q. You say \$66,560.28 was the net earnings of the company last year?

A. Yes, sir.

Q. You paid a government tax on twice that amount, didn't you, and you knew you had, and knew you were liable to, when you made that statement, didn't you?

A. The government tax report and this statement are made up entirely different.

Q. Different in what way?

A. Well, they will show on their face, General.

4518 Q. I want you to explain that item and I call it to your attention on your own account, not on mine.

A. You mean you want me to testify on my own behalf?

Q. I want whatever explanation you have to make to that item.

A. Well, I would say my understanding of the method in which this statement is to be arrived at according to the statute under which this statement is made, these are the net earnings which are called for in that statute.

Q. What net earnings are they: what net earnings did you think they were?

A. I don't think I could reproduce these figures without referring back to the books.

Q. You may take on that task: we would like to have you refer to the figures and present them here so that we can see just how you got at them?

A. Of course in this statement the question of construction of net earnings is the one that I referred to and this figure is produced from our books.

Q. You may at your leisure dig up the figures and bring them in to show how you got at it. You may take the witness.

Cross-examination by Judge GEO. H. CARR:

Q. In your direct examination by General Byers, quite frequent reference was made to a paper entitled, the United Gas Improvement Company Synopsis of Transactions Prepared by the Defendants' Witness Sangster. Now it appears that paper was turned over to complainant to be copied and in some way it has been mislaid. I show you a paper marked Complainant's Exhibit 69, Mr. Haines—

Mr. BYERS: We do not question but what it is correct.

4519 Judge CARR: I want to lay the foundation to put this in because I think the examination by you is not fully intelligent.

It is admitted that Complainant's Exhibit 69 is a correct copy of the statement made up by Mr. Sangster.

Complainant offers in evidence as a part of the cross examination of Mr. Haines Complainant's Exhibit 69.

The MASTER: Does that amount of the tax statement correspond with Complainant's Exhibit 23, on page 22?

A. Yes, sir.

The WITNESS: Then it won't be necessary for me to make up that statement. I did not recollect that it was contained in Exhibit 23.

Mr. BYERS: Is that the way you got at it or was Exhibit 23 made from your statement?

The WITNESS: This is the gross revenue—net income as appeared on the Company's books for the years ended September 30, 1908, 1909, 1910 and December 31, 1910.

Mr. BYERS: I want you to furnish your own figures, the way you arrived at it at the time you gave it to the assessor.

Judge CARR:

Mr. Haines, I will call your attention to Exhibit 18 and I want to ask you a few questions with regard to it. Will you turn to the first letter in point of time of that correspondence, that is under what date?

A. Under date of August 1st, 1910.

Q. It purports to be a letter to you written by Mr. Rollin Norris?

A. Yes.

Q. I don't know whether you have fully explained who Mr. Norris is? I wish you would do so to avoid any doubt about
4520 it.

A. Mr. Rollin Norris is an engineer, a graduate of Stephens Institute of Technology who has devoted his entire time to the construction, operation and investigation of gas works and gas business for about twenty-three years, or practically since he left Stephens Institute of Technology.

Q. What is his connection with the United Gas Improvement Company?

A. He is the representative of the head of the engineering department of the United Gas Improvement Company, Mr. Walton Clark, and has under him a number of assistants who are engineers and who are employed in assisting him in analyzing the design and construction and operation of gas works all over the United States, and in tabulating the results and costs and the records obtained from various sources throughout the United States, Canada and Europe; and he has also under him a large clerical force who collect and tabulate the results of construction, operation and design and cost; he also has a research department which collects all the literature and information available and assembles it and catalogs it

and arranges it, so as to be available for use. This department is independent of the general engineering department, has separate employes, but works with it. He also has a laboratory department for chemical tests and analysis. He also has under his direction experimental plants at two points for experimenting and testing various results of oils fuel, etc. I would say this research department in addition examines the design and construction of all patents that are issued, analyzes the processes that are patented, keeps in touch with them, with their application to the gas business. These engineers who assist Mr. Norris in his work are frequently detailed to special duty at various plants, in some cases in which the United

Gas Improvement Company is financially interested and in
4521 many others in which it has no financial interest, and when so detailed their time and expenses is charged to the company for whom they render services. This general service of the engineering department is part of the service for which the compensation of \$2500 a year is paid to Mr. Clark by the Des Moines Gas Company.

The MASTER: Who is Mr. Clark?

A. Mr. Walton Clark is the head of this engineering department in the United Gas Improvement Company and he is one of the Vice Presidents in the United Gas Improvement Company, and one of the Vice Presidents of the Des Moines Gas Company, and as a Vice President of the Des Moines Gas Company he is paid a salary of \$2500 a year by the Des Moines Gas Company which salary goes to the United Gas Improvement Company to pay in part for this service of an engineering nature which is rendered by the United Gas Improvement Company to the Des Moines Gas Company.

The MASTER: This Rollin Norris work in addition is taken out of it?

A. Rollin Norris furnished some of the services for which that payment is made. Rollin Norris has no salary from the Des Moines Gas Company, but the head of the engineering department under Mr. Walton Clark.

The MASTER: What I want to know, is that amount paid to Rollin Norris taken out of Clark's pay?

A. The Des Moines Gas Company makes no payment to Mr. Norris except for the traveling expenses which he incurs making a trip to Des Moines.

Q. In other words, do we understand the services rendered by Mr. Norris are compensated for in the salary paid Mr. Walton Clark?

A. Yes, sir.

4522 Q. And now is that also true as to the services rendered by

Mr. Norris' assistants?

A. That is true, absolutely true, in regard to his assistants when engaged in work for the Des Moines Gas Company in Philadelphia in tabulating these results, making these designs, equipment and planning for our future extensions and such work as that. He has a corps of three or four, I think five men, who immediately report to him and no charge is made for their time to the Des Moines Gas Company when they are working for the Des Moines Gas Company.

It is a part of the services they render and in which compensation is paid to Mr. Clark as head of that department. There are other men in that department whose services and time are both paid for, if they are delegated to come to Des Moines to do that work; but for the work which they do in Philadelphia no compensation is paid other than the compensation paid Mr. Clark. So that the items of traveling expenses are merely for the expenses when they actually have to come to Des Moines, and for these other subordinate men who simply come here on a detail while actually in Des Moines.

Q. Mr. Haines, you have stated in some detail the nature of the duties performed by Mr. Norris and his equipment for such work. What personal knowledge have you and what is the source of your personal knowledge?

A. I was for some years one of his assistants and directly under his direction and supervision and in that way I became thoroughly familiar, as a part of his organization, with the duties that were required of the engineers which he has in his department.

The MASTER: These services are they charged as construction and extension or to operation?

A. It depends on what work they are here for. They 4523 classify their own time and expense, depending on what work they actually are engaged in.

The MASTER: When they are in Des Moines for the purpose of extending mains and engineering for that, how is that charged?

A. They would charge that to extension of mains, if it was a 4 inch or 8 inch, depends on what size of mains they were doing specific work on.

The MASTER: Would they charge it to construction or operation?

A. They would charge to construction if they are here on construction work.

Q. Now this \$2,500 which is paid to Mr. Clark is one of the items that goes to make up the \$10,000 about which you have been interrogated by General Byers?

Objected to on part of defendants as not cross examination.

A. It is.

Q. In the letter of August 1, 1910, written you by Mr. Norris, reference is made to a blank copy for your annual estimate; was that included or enclosed in that letter?

A. Yes, sir.

Q. Is that in the files of the correspondence?

A. That is in the file of the correspondence attached to Exhibit 18.

Q. Now, Mr. Haines, upon the receipt of this letter, I wish you would tell the Master in a general way what you did in respect to complying with the request for your annual estimate; tell him in a general way how you went about it and what you did?

A. Well, I took this form and myself and Mr. Vincent went over the subject and collected the data called for in this form and prepared the figures submitted in this form.

The MASTER: This exhibit 18 shows how that is done in a 4524 general way?

A. Yes, sir; in a general way.

Q. Who is Mr. Vincent—I don't know but the record shows that?

A. The engineer of the Des Moines Gas Company.

Q. What do you say as to whether he is a qualified and competent gas engineer?

A. Well, he is a graduate from the University of Pennsylvania, Mechanical Engineering Department, and he has had about ten or fifteen years' experience in the gas business.

Mr. BYERS: We concede his competency too.

Q. What did he have to do in aiding you in the preparation of this annual estimate, if anything?

A. Well, we discussed the figures; we were both familiar with the machinery and appliances of the Des Moines Gas Company, and we together made an inspection of them, discussed the requirements and necessities for the future, and he aided me in his advice and computations.

Q. Can you tell us about how long a time you spent in the work of preparing this estimate in collaboration with Mr. Vincent?

A. Well, this estimate is made up from data and from these conferences held during the year, when some of this work, some requirement rather, future requirement of the Company becomes apparent, and some memorandum is made of it, or some note made of it, and then when this form was received, those notes and memoranda are gone over, collected and put into shape to submit to the Board through Mr. Norris.

Q. I think there is in the file some led pencil memoranda, is there not?

A. Yes, there are some pencil figures and computations. It generally takes about thirty days to get these figures compiled
4525 and in shape to make this estimate after the form is received.

Q. Who made up that pencil memoranda?

A. Mr. Vincent.

Q. Was that used in your conference with him or conferences?

A. Yes, sir; the form which Mr. Norris sent and the letter asks the question: What pressure mains will you probably need, give list and approximate cost. Some of this pencil memoranda made by Mr. Vincent are an analysis of the pressure conditions that have developed during the year and which we analyze in order to develop the districts which have to be supplied with large mains, which we call pressure mains, and these various pressures are figured out to show what size main will be required and what a given main will supply, so that we will have some accurate information as to the size of the main required to complete the distribution system, and relieve these low pressure areas.

Q. What I wanted to get at, Mr. Haines, I don't know but what you have answered it in part, perhaps fully, is to what extent you went over the subject with the Des Moines Gas Company's engineer, what care and thoroughness, before making out your estimate.

A. Well, each item was gone over with care, and data sketches were made by the engineer of the various things that required either free hand or carefully drawn sketches. Each item is taken up in

detail and the estimated value from an operating standpoint is taken into consideration with what information we have attained.

Q. You yourself, the record shows, are a gas engineer?

A. Yes, sir.

Q. If any point of difference arose between you and Mr. Vincent as to the requirements of the Company, did you take those 4526 matters up with him and discuss them and settle them?

A. Yes.

Q. Before making your final report?

A. Yes, sir. Of course my field in the application of the gas business is limited largely to Des Moines. For that reason the engineering problems are taken up and discussed with the engineers in Mr. Norris' department, who has the opportunity for broadening information in comparing the results with the various cities in the country.

Q. Now having made up this estimate in the manner you have stated and with the care you have stated, you transmitted it in what letter?

A. I transmitted it in detail in the letter dated August 29, 1910. I think the letter was written on that day and was held for some further information and was not mailed I believe until September 1st.

Q. Now do you know what was done with the report, what attention was given it, how it was handled, when it was received by Mr. Norris, and if you do, I wish you would state in a general way just how the estimate was handled in Philadelphia?

A. When the estimate was received by Mr. Norris, it would be gone over, read over and discussed by Mr. Norris and his immediate assistants. Each item in the estimate would be taken up and compared with the figures which Mr. Norris and his men had collected from other plants, through their travel and experience and study of the subject, and if some of the items that I requested in my annual estimate were not deemed necessary for Des Moines by Mr. Norris and his assistants, they would correspond with me further about it, or one of his assistants would come out to Des Moines and visit 4527 the property on the ground and make his own personal investigation and study of the subject and discuss with me further the pros and cons of the economy to be secured by the installation of some machine or something of that sort, and then he would report to Mr. Norris the result of his investigations, and Mr. Norris would make his recommendation to the board based on the conclusions that we had arrived at.

Q. Now, you said that Mr. Norris would first make his report to Mr. Clark?

A. He would take my annual estimate—after these matters were adjusted between his department and myself, then he would write a letter to Mr. Clark, vice president of the Des Moines Gas Company, which I think is shown here in the letter of date December 15, 1910, and make his recommendations to the board through Mr. Clark in that way.

Q. As I understand it then, before taking the matter up with Mr. Clark be with his assistants in his department would go over the

matter of your estimates with care and where points of difference existed between you and Mr. Norris with regard to the matter, he would sometimes take it up with you by sometimes sending out persons to look over the matter on the ground and make an investigation?

A. Yes, or come himself.

Q. Do you know in a general way how much time Mr. Norris in his department put on these annual estimates before making his report to Mr. Clark?

A. Well, from the time he received mine, which would probably be the 2nd or 3rd of September, until this letter was written December 15th.

Q. Now when the report was made to Mr. Clark by Mr. Norris, which as I understand you, would express his views on the
4528 subject, having arrived at that in the way you have stated, what would be the next step in the matter?

A. Mr. Clark would present them to the board of directors of the Des Moines Gas Company; they would take up each expenditure in detail, and the report in detail and discuss it, and if the board agreed with Mr. Clark in his recommendations, they would authorize me to make the expenditure.

Q. Let me ask in that connection, whether you know whether Mr. Clark and Mr. Norris would have a conference over Mr. Norris' report to him, or whether Mr. Clark would accept it?

A. Presumably they would confer more or less before it was done. They would have opportunity; their offices are close together.

At this time an adjournment was taken until 1:30 P. M.

4529

1:30 P. M., TUESDAY, *October 3, 1911.*

JANSEN HAINES continued on cross examination by Hon. George H. Carr, testified as follows:

Q. You have been asked by General Byers concerning the issue or the certification of certain bonds of the Des Moines Gas Company and the sale by the treasurer and the application of the proceeds. Now for the purpose of getting that matter clearly before the court I call your attention to the provisions of the mortgage of the Des Moines Gas Company already in evidence and which authorizes the issue of \$1,500,000 of bonds and after making certain deductions from that amount in paragraph 3 in article 1, the mortgage provides as follows: "The balance being \$815,000 at par of said bonds shall be retained by the trustee and shall be certified and delivered from time to time by the trustee and shall be used by the gas company only for the purpose of making additions to or extensions or betterments of its plants or acquiring other plants or properties real or personal. The trustee will not deliver any of the bonds in this subdivision three referred to except upon resolution of the board of directors of the gas company calling for such delivery and stating that the bonds then called for are required for such addition, extensions betterments, or acquisitions as aforesaid and also stating that said bonds or the proceeds thereof are to be used for one or more of said

purposes and a certified copy of such resolution under seal of the gas company shall be conclusive evidence to the trustee of the truth of the matters therein set forth and shall constitute full and sufficient authority to the trustee to certify and deliver said bonds in the
4530 amount stated therein to be so required and the trustee shall thereupon certify and deliver said amount of bonds to or upon the order in writing of the president or vice president of the gas company. Now I wish you would turn to defendant's exhibit No. 27 being stockholders' and directors' minutes No. 1, to the directors' meeting under August 15, 1906, found on page- 68 to 70 of the record and state whether or not that is the first action taken by the directors authorizing the certification of any portion of this \$815,000 of bonds?

A. That is the first action of the board as indicated in the directors' meeting held August 15, 1906, shown on page 68 and headed betterment statement.

Q. You say that is the first action taken?

A. That is the first action taken, yes.

Judge CARR: At this time complainant offers and reads in evidence—

Mr. BYERS: Objected to as a meter repetition, already read in the record, at least been offered twice.

Judge CARR (continuing): From the record of the board of directors' meeting of the Des Moines Gas Company under date of August 15, 1906, the following portion thereof. Betterment statement. The president submitted a statement prepared by the treasurer showing that the company had expended in making additions to or extensions or betterments of its plants or acquiring other plants or property real or personal from March 1, 1903, to June 30, 1906 the sum of \$58,730.77 and submitted a statement showing the various items comprising this sum which statement upon being read was ordered to be spread upon the minutes and is as follows: "Ex-
penditures made for additions to or extensions of betterments
4531 of the plants of the Des Moines Gas Company or for acquiring other plants or property real or personal March 1, 1906, to June 30, 1906. Extensions and improvements at works \$757.64. Street lamp extensions \$607.92; extensions of street mains \$38,627.33, Meters \$11,877.92, services \$3,790.65 total \$58,730.77. Certification of \$58,000 of bonds. The president thereupon stated that it was proper to request the commercial trust Company Trustee under the company's first mortgage dated March 1, 1906 to certify and deliver to the company bonds equal to the amount of the above sum of \$58,730.77. Whereupon upon motion duly seconded the following preamble and resolution- were unanimously adopted. Whereas, the Des Moines Gas Company has expended from March 1, 1906, to June 30, 1906, the sum of \$58,730.77 for the purpose of making additions to or extensions or betterments of its plants or acquiring other plants or property real or personal and whereas it is desired that the commercial trust com- trustee under the company's first mortgage dated March 1, 1906, be requested to certify \$58,000 at par of the first mortgage five per cent 20 year gold bonds of the

company secured by said mortgage and deliver the same to or upon the order in writing of the president of the company, said bonds being equal in amount to said expenditures of the company as above set forth and for which *which* bonds have not heretofore been issued, leaving, however, a balance of \$730.77 on account of which amount the company may hereafter request the trustee to certify and issue bonds, the same not being done at the present time as said bonds are of the denomination of \$1,000 each and the company does not desire bonds in fractional amounts of \$1,000 should be issued. Now
 4532 therefore be it resolved that the Commercial Trust Company, trustee, under the first mortgage of the Des Moines Gas Company dated March 1, 1906, be and it is hereby requested to certify \$58,000 at par of the first mortgage five per cent 20 year gold bonds of the company and deliver the same to or upon the order in writing of the president of the company to be used by the company only for the purposes of making additions to or extensions or betterments of its plants or acquiring other plants or property real or personal as set forth, and be it further resolved that the secretary of the company be and is hereby authorized and instructed to prepare a certified copy of these preambles and resolutions for presentation to the trustees. Sale of \$58,000 bonds. On motion duly seconded and unanimously adopted it was resolved that the treasurer be and he is hereby authorized and directed to sell or dispose of on such terms and conditions and at such time as you shall deem it best for the interests of the company the \$58,000 of the first mortgage five per cent 20 year gold bonds of the company the certification and issue of which bonds provision has been made at this meeting and to apply the proceeds thereof to the discharge of any of this company's liabilities. On motion the meeting adjourned.

Q. Mr. Haines, do you know or can you state when this \$58,000 of bonds was sold? In giving your answer include in the answer the source of information and if in writing read it into the record.

A. I find in defendant's exhibit 56 the treasurer's check book opposite check No. 19, the following entry. 6-7-07. Deposit sale \$100,000 bonds at 90, \$90,000 interest three months five per cent \$1,250, total deposit, \$91,250.

Q. I note that there is a sale of a \$100,000 par value of
 4533 bonds. Will you turn to the records of the board of directors in defendant's exhibit 27 and state whether you find therein any authorization prior to June 1, 1907, for any further issue of bonds than the \$58,000 to which you have already referred?

Objected to as a mere repetition having already been gone over.

A. I find on page 87 of defendant's exhibit 27, the following authorization acted on at the meeting of the directors under date of March 20th, 1907, which reads as follows:

Betterment statement. The vice president submitted statement prepared by the treasurer showing that the company had expended in making additions to or extensions or betterments of its plants or acquiring other plants or property, real or personal from March 1, 1906, to December 31, 1906, the sum of \$129,282.11 and sub-

mitted a statement showing the various items comprising this sum, which statement was read and ordered spread upon the minutes and is as follows: Expenditures made for additions to extensions, or betterments of plants of the Des Moines Gas Company or for acquiring other plants or property, real or personal from March 1, 1906, to December 31, 1906.

| | |
|---|------------|
| Extensions and improvements at works..... | \$4,644.30 |
| Street Lamp extensions..... | 1,511.59 |
| Extension of street mains | 84,209.66 |
| Meters | 24,674.84 |
| Services | 14,241.72 |
| Total | 129,282.11 |

Less amount of bonds heretofore issued on account of same \$58,000. Balance of amount for which bonds could be issued at par \$71,282.11. On page 88 of Exhibit 27 certification of \$71,000 of bonds.

4534 The president thereupon stated that it was proper to request the Commercial Trust Company, trustee under the company's first mortgage dated March 1, 1906, to certify and deliver to the company bonds equal to the amount of the above balance of \$71,282.11. Whereupon on motion duly seconded the following preambles and resolutions were unanimously adopted.

Whereas the Des Moines Gas Company has expended from March 1, 1900, to December 31, 1906, the sum of \$129,282.11 for the purpose of making additions to or extensions or betterments of its plants or acquiring other plants or property real or personal and

Whereas, commercial Trust Company, trustee under the company's first mortgage dated March 1, 1906, has heretofore certified and delivered to the company on account of the above expenditure bonds of the par value of fifty eight thousand dollars (\$58,000) and whereas, it is desired that the Commercial Trustee, under the company's first mortgage dated March 1, 1906, be requested to certify Seventy one thousand dollars (\$71,000) at par of the first mortgage five per cent twenty year gold bonds of the company secured by said mortgage and deliver the same to or upon the order in writing of the president of the company said bonds being equal in amount to said balance of expenditures of the company as above set forth and for which bonds have not heretofore been issued leaving, however, a balance \$282.11 on account of which the company may hereafter request the trustee to certify and issue bonds the same not being done at the present time as said bonds are of the denomination of \$1,000 each and the company does not desire that bonds in fractional amounts of \$10,000 should be issued.

Now therefore be it resolved that Commercial Trust Company trustee, under the first mortgage of the Des Moines Gas Company dated March 1, 1906, be and is hereby requested to certify Seventy one Thousand dollars (\$71,000) at par of the first mortgage five per cent twenty year gold bonds of the company, and deliver the same to, or upon the order in writing of the president

of the company to be used by the company, only for the purposes of making additions to or extensions or betterments of its plants or acquiring other plants or property real or personal as above set forth.

Further resolved that the secretary of the company be and he is hereby authorized and instructed to prepare a certified copy of these preambles and resolutions for presentation to the trustee.

Selling Seventy one Thousand Dollars bonds. On motion duly seconded and unanimously adopted it was resolved that the treasurer be and he is hereby authorized and directed to sell and dispose of upon such terms and conditions and at such time as he shall deem it best for the interests of the company the \$71 000 of the first mortgage five per cent 20 year gold bonds of the company, the certification and issue of which bonds provision has been made at this meeting and to apply the proceeds thereof on the discharge of any of this company's liabilities. On motion the meeting adjourned.

Q. Can you tell us what was done with the proceeds of the sale of that \$100,000 of bonds which had been certified under these two authorizations of the board of directors and which were disposed of on the first of June 1907. Before you answer that question I understand your statements of the \$129,000 of bonds which have been called for by these two resolutions and certified, \$100,000 was sold leaving \$29,000 in the hands of the treasurer. That is 4536 correct is it?

Objected to as not cross examination, leading immaterial and a mere repetition.

A. As shown by defendant's exhibit 56 there was sold June 1, 1909, \$100,000 of these bonds which with the discount and adding interest netted the Des Moines Gas Company \$9,250.

Q. Now the question is what was done with that money by the treasurer?

Objected to unless the witness claims to know of his own knowledge, not the best evidence of what was done with it.

A. The money which the treasurer received as is shown in his check book Exhibit 56, which appears to be properly kept in the usual method of keeping check book entries, appear to have been made consecutively and in order, was deposited to the account of the treasurer in the First National Bank of Philadelphia under date of June 1, 1907.

Q. What became of that money, let me call your attention to the stub of check 20.

COURT: Let me make a suggestion to you. This record shows all these things were paid *pro* before the bonds were issued.

Judge CARR: It is just for the purpose of explaining these funds. I think if you will just have a little patience with us, I think this matter is material and if we do not go through it a wrong impression may be created as to how the proceeds of these bonds were used.

Mr. BYERS: This is what we claim and the purpose we had in introducing this testimony was to show that the money actually received for these bonds, a large portion of it was used to retire the

preferred stock contracts, the property improvements and additions referred to in the authorization having been made before this 4537 and paid for out of the earnings and our purpose in introducing this record was to show just how much money had gone to retire preferred stock contracts, principal and interest, in order to determine just how much money had been taken out of this business for improvements and retiring these preferred stock contracts.

Judge CARR: That is just what we want to show, show it is not true as General Byers states it, that the proceeds of these bonds went to pay off these preferred stock contracts. We want to show the real transaction that the proceeds of the bonds went to reimburse the treasurer on account of the funds that had been thus used. If I understand the record you offered the stub book in evidence.

Mr. BYERS: I offered everything that I could get hold of that would make it clear what was done with it.

Judge CARR: You offered the record book as a whole.

Mr. BYERS: I offered that as a whole for the express purpose of getting at the transaction.

COURT: You might refer to each of these records and I will note it so we will know where to refer to them. I would like to know the date of the sale and what the discount was.

Q. Aside from what is in the record, the next matter I think that pertains to this was covered by the last question, check 20, have you referred to it?

A. Yes, sir.

Q. Just what does that show?

A. That shows the payment to the United Gas Improvement Company of \$89,840.97 marked demand notes \$87,635.47 and interest to 6-1-07 at 6 per cent, \$2,205.50, total, \$89,840.97. That payment was made subsequent to the first sale of bonds or at the sale of the first bonds, the bonds sold June 1, 1907, and the 4538 treasurer retired the demand notes for \$87,635.47 on June 1, 1907. In other words on the same day on which the bonds were sold and the money received and deposited from the sale of them the treasurer paid off and canceled a demand note and interest amounting to \$89,840.87.

Q. Do you know what those notes were given for?

A. Those notes were given for advances by the United Gas Improvement Company on account of construction, borrowed money, money which was borrowed from the U. G. I.

Q. If you will, turn to page 107 under date of September 18, 1907, of the minute book, you will find the next transaction and give the Master the reference to that and amount of bonds authorized by the meeting.

A. On page 107 of this exhibit 27 the betterment statement shows that \$167,476.38 had been expended for additions, betterments, etc., recited from March 1, 1906, to June 30, 1907, and the statement shows that the amount of bonds heretofore issued on account of same was \$129,000 leaving balance of amount for which bonds may be issued at par of \$38,476.38. \$38,000 of bonds were

certified and the Commercial Trust Company delivered to the company bonds equal to the amount of \$38,000 leaving a balance of \$476.38 to apply on future betterment statements for the further issue of bonds so that they could be issued in multiples of a thousand.

Q. That left that \$29,000 already in the hands of the treasurer and \$38,000, left \$67,000 then in his hands.

A. Then on page 109 the sale of the \$38,000 of bonds was authorized that is the treasurer, was authorized to make the sale and that \$38,000 with the \$29,000 before made \$67,000 which the 4539 treasurer after that meeting of September 18th had and had the authority to sell.

Q. Now turn to page 122 of the regular meeting of the board of directors under date February 18, 1908, and state in the same manner what that is?

Q. On page 122, in defendant's Exhibit 27, under date of February 19, 1908, a betterment statement was presented, prepared by the treasurer and presented to the board.

Court: You mean it as shown by Exhibit 23.

A. As shown by plaintiff's exhibit 23 that betterment statement shows betterments to the amount of \$221,680.41 had been made from March 1, 1906 to December 31, 1907, and that the amount of bonds heretofore issued on account of the same was \$167,000 leaving a balance of \$54,680.41 for which bonds might be issued at par. Then follows certification of \$54,000 worth of bonds by the trustee and order to the treasurer to sell \$54,000 worth of bonds leaving a balance of \$680.41 to apply on future issues of bonds under this mortgage.

Q. Now right there can you call the Master's attention to the place where the record of these bonds or a part of them being sold?

A. On defendant's Exhibit 56 I find opposite check No. 40 under date of June 1, 1908, deposit proceeds sale \$121,000 worth of par bonds at 90 \$108,900 interest 3-1 to 6-1 at 5 per cent \$1,512.50. The total received by the treasurer for the sale of this \$120,000 bonds deposited to his account as treasurer in the First National Bank was \$110,412.51.

Q. Now if you will, turn to directors' meeting under May 20, 1908, page 135 for the next authorization and state briefly what that is.

A. On defendant's Exhibit 27, beginning on page 135 in 4540 the minutes of directors' meeting held May 20, 1908, I find a sale of \$121,000 worth of treasury bonds authorized by the board.

Q. What was the betterment statement at that time?

A. There was no better- statement presented at that meeting of the board.

Q. Now turn to page 145 under date August 10, 1908, you will find the next directors' meeting authorizing a certification of bonds.

A. On page 145 of defendant's exhibit 27 a directors' meeting under date August 19, 1908, a better- statement was presented showing betterments had been made from March 1, 1906, to June 30,

1908, of \$239,052.42, amount of bonds heretofore issued on account of same \$221,000 leaving a balance of \$18,053.42 for which bonds may be issued at par. Then on page 146 of the same exhibit follows the minute of the certification of \$18,000 worth of bonds. No authority to sell at that meeting.

Q. Now turn to directors' meeting of date February 10, 1909, beginning on page 157 and state what you find there?

A. On page 157 of defendant's Exhibit 27, is shown in the minutes of the directors' meeting February 10, 1909, a betterment statement showing that betterments from March 1, 1906, to December 31, 1908, had been made to the amount of \$267,330.85, less amount of bonds heretofore issued on account of same, \$239,000 leaving balance for which bonds may be issued at par \$28,330.85. Then follows on page 158 certification of \$28,000 worth of bonds leaving balance of \$330.85 to be applied and on page 159 a minute of the authorization of the treasurer to sell at 90 and accrued interest \$46,000 of these bonds being \$18,000 par value of bonds now held in the company's treasury and \$28,000 par value of bonds for the certification of which provision has been made at this meeting.

4541 Q. If you will, take your check book now and find the entry on the back of the stub opposite check No. 46 under date March 15, 1909, and state what that shows?

A. On defendant's exhibit 56 opposite check No. 46 will be found the entry under date March 15, 1909, deposit proceeds of sale of \$46,000 par 5 per cent bonds \$41,489.44.

Q. Sold at what?

A. Does not show in this entry, but it was in accordance with the authorization for the sale of these bonds contained on page 159 of defendant's exhibit 27, these bonds were sold at 90.

Q. On the same day do you find reference there in the check book to the payment of \$103,800?

A. On defendant Exhibit 56 the stub of check 47 and 48 shows as follows, check 47 dated March 15, 1909, the United Gas Improvement amount to pay off preferred stock contracts, amounting to \$103,800 or 1038 shares at \$100 par, \$83,000 for that check and check No. 48 amount to pay balance of preferred stock contracts \$20,800 and interest, amount of check No. 48 including \$20,800 of preferred stock contracts and interest amount of \$41,560.

Q. Now if you will take minute book and refer to directors' meeting on page 185 recording the directors' meeting under date of October 20, 1909, and tell us what that shows?

A. On page 185 defendant's exhibit 27 minutes of the directors' meeting held October 20, 1909, there was a betterment statement and on page 186 this betterment statement shows that from March 1, 1906 to September 30, 1909, there had been expended \$331,182.03, less amount of bonds heretofore issued on account of same, \$267,000 balance of amount for which bonds may be issued at par \$64,182.03. Then follows certification of the bonds and on page 187 the minutes

4542 contain the authorization to the treasurer to sell at 95 and accrued interest, \$64,000 of the company's first mortgage bonds for the certification of which provision has been made at this meeting.

Q. Now if you will turn to the check book opposite check 52 under date October 25, and see if you will find any record there of the sale of that amount of bonds?

Q. On October 25, 1909, is shown in defendant's Exhibit 56 opposite check No. 52 the following item: Deposit proceeds sale of \$64,000 bonds at 95, \$60,800 interest 9-1 to 10-25, one month 24 days at five per cent \$480. Total \$61,280 which is shown as received by the treasurer for the sale of these bonds and deposited to his account as treasurer in the First National Bank in Philadelphia. There is a further note in this giving the number of the bonds, No. 953 to 1016 inclusive.

Q. Under the same date do you find on the check book an entry of payments made?

A. The stub of check No. 52, defendant's exhibit 56, under date October 25, 1909, the following entry was made. United Gas Improvement Company amount paid pursuant to resolution by board of directors 1-20-09 on surrender for cancellation of preferred stock contracts 19.4 per cent of total outstanding amount thereof (\$588.200) \$114,110.80; interest from 9-1 to 1-25 1909, at 6 per cent \$1,027. Total amount of this check so paid appears from the entry \$115,137.80.

Q. Now take the minute book and refer to a directors' meeting of February 28, 1910, page 201 to 203 inclusive and state what that shows.

A. Page 201 defendant's exhibit 27 in the minutes of a directors' meeting held March 28, 1910, the following betterment statement appears which was presented to the board and acted upon. 4543 This betterment statement shows that from March 1, 1906 to December 31, 1909, there had been expended \$263,567.07 less amount of bonds heretofore issued on account of same \$331,000 balance of amount for which bonds may be issued at par \$32,567.07. Then follows certification of \$32,000 worth of bonds and no authority for sale on that date I believe.

Q. Now turn to directors' meeting August 15, 1910, page 217 to 221 inclusive and state what that shows?

A. On page 217 defendant's exhibit 27 in the minutes of the directors' meeting under date of August 15, 1910, appears a betterment statement showing that \$412,704.51 had been expended for betterments less amount of bonds heretofore issued on account of same \$263,000, balance for which bonds may be issued at par \$49,704.50. Then follows on page 218 certification of \$49,000 worth of bonds and on page 219 the treasurer is authorized to sell at 95 and accrued interest \$81,000 first mortgage bonds being \$32,000 par value of bonds now held in the company's treasury and \$49,000 par value of bonds for the certification of which provision has been made at this meeting.

Q. Now if you will turn to the entry on the back of the stub in the check book opposite check 67 under date September 15, 1910, and state what that shows.

A. On defendant's exhibit 56 opposite check No. 67 under date 9-15-10 is shown the entry deposit sale of \$81,000 par bonds at 95

\$76,950, Nos. 1017 to 1-97 inclusive accrued interest 9-1 to 9-15 fourteen days five per cent, \$157.50. The total now of deposit as shown by this entry going to the treasury of the Des Moines Gas Company in the First National Bank of Philadelphia \$177,107.50.

Q. On the same date check No. 70, the stub of check No. 4544 70, what does that show?

A. That stub of check No. 70, defendant's exhibit 56, under date September 15, 1910, the following entry is made: United Gas Improvement Company amount paid pursuant to resolution adopted by board 8-15-10 on surrender for cancel of preferred stock contracts 13.307453 per cent of total amount outstanding \$474.-089.20 equals \$63,089.20. Interest 9-1 to 9-15-10 at 6 per cent \$147.21. The amount of the check so paid as shown by this entry is \$63,236.41.

Q. You were asked by General Byers with respect to printing. I wish you would explain to the Master just how the matter of printing is handled, how it is done and where you got it done. The matter was only partially gone into in your testimony in chief, blanks, letterheads and things of that kind.

MR. BYERS: I don't care anything about it as I stated at the time.

Judge CARR: I don't know as it is material at all but I don't want the record to show only part of a situation of that kind.

Q. I want to show just exactly Mr. Haines the facts in regard to the printing that is done for the Des Moines Gas Company, I wish you would explain that fully?

A. The necessary blanks, forms, letterheads and so on that have to be printed for the use of the Des Moines Gas Company are ordered by me from the purchasing agent Mr. Pearson who purchases them for the Des Moines Gas Company wherever he can buy them cheapest whether in Philadelphia or elsewhere and he keeps in touch with me in regard to the printing cost and a good deal of printing can be done in Des Moines as cheaply as it can be done elsewhere, but not all and unless it is necessary to have forms printed in a hurry I communicate with him, obtain the best price which
4545 I can obtain and give him my price and we decide on the purchase of the printing where it can be done most cheaply.

Q. Right there, you said give him your price, what did you mean by that?

A. I mean give him the price which I can obtain in Des Moines from the printing firms in Des Moines and as happened on several occasions Mr. Pearson has ordered printing in Des Moines for the account of and in the service of other companies, not the Des Moines Gas Co. In other words he has purchased printing in Des Moines for other plants on account of the fact a good deal can be done here cheaper than can be done elsewhere.

Q. Let me ask you whether it would be true to say that the printing which you use, that is the supplies which you use, letter heads, envelopes, blanks, etc., stationary might be divided into two classes, one which is printed specially for the Des Moines Gas Company having the name of the Des Moines Gas Company and another class

of blanks which are general in form and can be used by the Des Moines Gas Company or any other like institution, can you make such general classification in your stationary?

A. That is true. I think I have some of those blanks here. I had quite a number of them collected, I think they are in the next room.

Q. Now as to the class of printing which is done specially for the Des Moines Gas Company where is the larger portion of that done if you can give us an idea whether locally or in Philadelphia.

A. Well it would be hard for me to tell what *what* the proportion is. The gas bills which amount to nearly \$200,000 a year are printed in Buffalo, New York. A good deal of our stationary used here by the Des Moines Gas Company in Des Moines is printed in Des Moines and some of the stationary which is used in Philadelphia for the Des Moines Gas Company in the transactions of its officers there is printed in Philadelphia.

Q. What is the fact as to what governs you in the place where you secure this stationary that you have been talking about?

A. Just exactly the same influence governs in the purchase of stationary as governs the purchase of anything else, simply buy where it can be bought the cheapest, quality considered.

Q. When you can buy it to better advantage locally, what is the fact as to where you buy?

A. I buy locally.

Q. When you can't buy to as good advantage locally what is the fact as to where you buy?

A. I buy wherever I can buy cheapest.

Q. Now as to class of supplies that you have spoken of as being general blanks, or blanks which are so printed that they can be used by the Des Moines Gas Company or by any other like institution, explain to the Master about those blanks, where you get them and why you get them from that source.

A. Well these general blanks are forms which are made up from the experience of the engineering staff or bookkeeping staff of the United Gas Improvement Company as being the best form to give a clear statement of the business and those forms are printed in large quantities and are carried in stock in the store room in Philadelphia of the United Gas Improvement Company and are issued to the Des Moines Gas Company upon order from me to the purchasing agent who purchases them from the United Gas Improvement Company the same as I would from any dealer in stationary except that he gets the items at the actual cost to the United Gas Improvement Company with all the discounts that they get taken off. In that way it simply saves the dealer's profit.

4547 Q. Do you know what was the amount of the purchases made by Mr. Pearson purchasing agent of the Des Moines Gas Company in the year 1910?

A. For the Des Moines Gas Company, his purchases amounted to a little over \$250,000 for 1910. I have forgotten what the exact figures were, but it is between 250 and 251 I think.

Q. Referring now to your testimony with regard to the traveling auditors, General Byers asked you a question as to whether the men did not come out exactly the same way that the checking auditors of railroads and other corporations came out to check up their agents. What is the fact as to whether these men check up any particular department of the company or whether they make an audit of all the books?

A. I think I did not state quite as fully what I meant to state at that time, and that was that the audit which is made here includes the audit of all the books which are kept by the clerks in the office and records which are kept of the stock and the goods on hand, meters and the cash. The auditors make a complete audit of all of the books with respect to the entries, but they do not audit with respect to the classification of accounts that is to say they do not make changes in the classification, they simply audit to show that the items are correct. Now the questions of classification and the audit of these is made in Philadelphia by the reports which are sent in from me to the general auditor's department. The general auditor takes these reports and sees that the classification is correct or takes up with me any change which should be made or any correction which should be made in classification and if it meets with my approval he makes that change. And these reports 4548 which he receives are checked as to correctness of reports as shown on my books by these auditors that come here to make the check. And in addition the auditors that come to Des Moines send out a slip which I have referred to and of which this is a copy, which is sent out to our customers filled in with the amount of their account as shown on our books charged to them.

Q. Do I understand that this is sent out to each consumer of gas?

A. To each person with whom we have an account charged whether it is for the sale of gas or for anything else so that they can compare it with their bills or with the account as they understand it and return it to us with their approval or disapproval. I say return it to us, I should say return it to the auditor. The auditor in sending it to them encloses a stamped envelope addressed to himself.

COURT: He makes a statement on this of the account of each consumer?

A. He sends one of these slips by mail to each consumer and on this slip is indicated the account open against that consumer. This is not a dun, simply a memorandum for the consumer or customer to compare with the bills which he has received and the account which is on our books so that if there is any difference the auditor will learn it and then he can go and interview the consumer and find out why that difference has occurred and compare it with our books.

COURT: That is quite an unusual precaution isn't it?

A. It is necessary because of the large number of accounts which we have that errors may creep in in the large number of figures that our clerks deal with. And when these audits are made of course these errors are adjusted and corrected. I think your honor this

is the usual method pursued by large companies that have
4549 their accounts regularly audited by an accounting firm.

Q. It is true also is it not that many persons have to do with these accounts and what goes into the account that is I mean many clerks?

A. Yes, sir.

Q. Has to go through a good many hands.

A. Yes, goes through the hands of meter readers and ledger clerks and the cashiers.

Q. This becomes a check on everybody that has to do with that part of the business?

A. Yes, after the audit is completed our books will show that any errors have been corrected at that time. There are not very many errors but there are some that would tend to annoy the customers and make them think they were not being properly treated. This satisfies them naturally that *that* the business of the company is being properly conducted.

Q. Is complainant's exhibit No. 70 the paper to which you have referred, the blank?

A. Yes, sir.

Q. Two bills, Exhibits 53 and 54, were shown you by General Byers, being expense accounts as I remember or bills for expenses of these auditors and you were asked if all you knew about the accuracy of the items was what appeared on the face of these two exhibits. Now I wish you would tell the Master what you know about the accuracy of these bills or bills of a *light* character.

Objected to as having all been gone over and a mere repetition.

A. I know that when the auditors come to Des Moines they report to me on their arrival, they are working in the office, I am familiar with the length of time that they are there and
4550 know the character of the men and about what they are paid and know that these bills are approximately correct and have sufficient information to believe that they are correct.

Q. You have knowledge as to what the amount of their expenses approximately would be while they are here?

A. I have. I of course have done this work myself sufficiently to know what would be a proper charge for these services and these expenses.

Q. I want to ask you in regard to this item and as to others of like character whether it is true as intimated in the questions asked you on these Exhibits that you simply took these bills and paid them without any investigation as to whether they are reasonable, proper and just charges against the Des Moines Gas Company or not?

A. No, I took these bills and approved them myself personally, and if I find in these bills or any other bills items which I do not understand or do not believe are proper I will refuse to pay the bill and return it for explanation and correction whether a bill from the United Gas Improvement Company or anyone else, there is no compulsion or requirement on my part to pay these bills unless I know them to be correct.

Q. Do you pay bills to the United Gas Improvement Company on any other basis or plan than you would pay a bill rendered by anybody else?

A. Absolutely none. They stand in the same position as any other firm or corporation furnishing material or supplies and services.

Q. You were asked with regard to the manner in which the treasurer kept his accounts with the Des Moines Gas Company and the manner which you kept your accounts with him. I made a note here, I don't know whether that was fully explained or
4551 not. If there is any further explanation you wish to make in regard to that I wish you would make it clear just how those accounts are kept.

A. On page 4439 Line 26, I note there is an error there, the record says this, he would charge himself with it when he makes these payments, that should read he would credit himself with it when he made these payments, speaking now of the treasurer. That is an obvious error.

Q. You were asked in that connection if I recollect correctly as to the books that are kept by the treasurer. Do you know of any books of account that are kept by the treasurer of the Des Moines Gas Company other than his bank book or pass book and the stub book or check book with the stubs filled out that has been exhibited here, do you know of any other books kept by him?

A. The treasurer keeps his check book which has been exhibited here defendant's exhibit 56 and a bank pass book for his treasurer's account, but as treasurer of the Des Moines Gas Company, he keeps a set of books which are an exact transcript of the books which we keep, that is the journal and ledger and those books are made from the reports or transcripts of the entries made on the books here so that he has before him at any time after the middle of the month a complete transcript of our books up to the first of the month.

COURT: Every month the middle of the month or twice a month you make a report?

A. These transcripts are copied at the middle of the month as of the 31st or 30th of the preceding month. That is we close the books the 30th of the month and make up these transcripts and they are sent to Philadelphia and are copied on to his books there.

COURT: He sends you a transcript also of the entries on his books that are made there that do not appear on your books until
4552 later you enter that on your book?

A. That is correct, yes. So that in that sense he has other books in Philadelphia but not in connection with his account as treasurer. On page 4439 of the record Line 16, I stated in answer to a question I have a duplicate of his record or duplicate of his check book or pass book. What I mean by that was that I have a duplicate of the entry on his record and a corresponding entry here on my books which would correspond with his check book or pass book. I do not as a matter of fact keep a copy of his check book and his pass book here, but I do keep copies of the entries here.

Q. General Byers asked you this, he spoke about when he sells

securities, referring now to the treasurer, when he sells securities and gets money for them, how do you find out just what money he has got and you answered he sends me the entries to put on the books. Then he asked you the question, he writes a letter with a statement showing just what securities have been sold and you answered yes. Now have you a letter of that character that you can produce showing how that is done?

A. That has been offered, been one of them offered in evidence, I have others if you wish them.

Q. You have referred to the amount of purchases for the Des Moines Gas Company done by Mr. Pearson as purchasing agent of the company. I want to ask you this question, do you know about what it would cost the Des Moines Gas Company to have a purchasing agent whose business of purchasing supplies for the company *was* being compensated for by the company, that is, if you had an agent who purchased supplies whose whole time was being paid for by the Des Moines Gas Company, or whose purchases were made for the Des Moines Gas Company on commission or 4553 any other basis can you state from your knowledge and experience about what the necessary expenditure would be to the Des Moines Gas Company in handling that?

Objected to as not cross examination and no foundation has been laid for the evidence as evidence in chief and no question was put to the witness with respect to it in direct examination. If counsel wants to make a case on that he ought to put on his own witnesses and not try to do it on cross examination.

COURT: I am inclined to think that objection is well taken.

Judge CARR: As the question is now asked I will make him my own witness for that purpose.

Mr. BYERS: Then the question is objected to as incompetent, immaterial and irrelevant, the witness is incompetent, being no foundation laid for testimony sought to be elicited by the question.

A. I should estimate that a purchasing department organized for the Des Moines Gas Company alone locally would cost very much in excess of \$2,500. There are some firms or concerns who make it a business of acting as purchasing agent for large companies and these firms charge from two to two and a half per cent I believe on the bulk of the purchases as a commission for their services.

Defendants move to strike the answer as incompetent and a large part of it a voluntary statement, not responsive and the whole evidence immaterial and irrelevant.

Q. Have you before you a copy of Exhibit 59. Referring to this statement for the year ending February 28, 1907, I enquire for purpose of making it entirely clear if it is not already so as to the reason for the difference in the accounts with respect to certain individuals in which time and expense *is* charged for and other

individuals in which there is simply a charge for expense
4554 and wish you would state what the fact is as to why the
difference in these charges by the United Gas Improvement
Company for these services why in some cases time and expense is
charged for and in others expense only.

A. The expenses only are charged where the head of a department in the discharge of a service to the Des Moines Gas Company is required to travel on that company's account, but the expense which he may incur on account of any other company or on account of the United Gas Improvement Company is not charged to the Des Moines Gas Company and his time is not charged to the Des Moines Gas Company whether he is in Des Moines or whether he is working in Philadelphia on the business of the Des Moines Gas Company, so that his services are furnished as a gratuity to the Des Moines Gas Company and are in part compensated for by the \$10,000 in salaries paid to the United Gas Improvement Company at the present time.

Q. As I understand you prior to this salary allowance being made to which you have referred the services which were rendered by these men was a gratuity to the Des Moines Gas Company?

Mr. BYERS: By what men?

A. By the heads of the Departments.

Objected to as incompetent, immaterial in that form, these men don't mean anything.

Q. (Question read.)

A. Yes, prior to some time in 1909 there was no charge made for these services of the heads of departments referred to in my previous answer.

Q. No compensation paid in any way by the Des Moines Gas Company. Do you remember the date when the salary provisions began?

A. On page 185 defendant's exhibit 27 the minutes of
4555 the directors' meeting held October 20, 1909, is the following minutes: Salaries officers. Approved payment of salaries to the following officers at the following rate per year, effective November 1, 1909. President \$2,500; 2d vice president \$1,800; treasurer \$1,600 secretary \$1,600; purchasing agent \$2,500.

Q. You may turn to the analysis of the account in this Exhibit 59 for the year ending February 29, 1908, and take the first item cash advanced \$15,815.76. Is that one item or is it made up of several items?

A. That item of \$15,815.76 is made up of an item on page 210 journal No. 1 of the Des Moines Gas Company entered under date 4—30—07 cash advanced to treasurer \$10,000. Cash book No. 1 folio 52, 5—31—07. Cash advanced to Company \$5,000. Journal No. 1, folio 314 11—30—07, cash advanced to treasurer \$815.76. Total \$15,815.76.

Q. What were those advances for cash for?

A. The item of \$10,000 folio 210 was borrowed on a demand note dated April 9—07. That was for money borrowed from the

United Gas Improvement Company to pay for some construction work, just what items would not show on this record of course, because the money was borrowed, we run out of money and had to have some money for construction work and simply borrowed it. On page 314 the \$815.76 for amount to refund payment of October 1, in treasurer's office same having been paid by local office. That means that the treasurer did not have enough money at that time to make a payment and he borrowed money from the United Gas Improvement company for the Des Moines Gas Company's account.

Q. That accounts for \$15,000 of it?

A. The \$5,000 was money borrowed for construction account just the same as the \$10,000 only it didn't go through the treasurer's account. My recollection is I made a draft on the treasurer 4556 for that amount of money, but I am not quite sure about that. That draft would go on Mr. Louis Lilley, treasurer United Gas Improvement Company for \$5,000 to furnish funds for our construction work in Des Moines.

Q. Have you an analysis of the next item special fittings, material and inspection?

A. I have that item of \$288.03 classified to the store room for special fittings, material and inspection as follows: For argand burner \$4.38; nozzles \$7.50; bray burners \$78.00; bray burners \$39.00 chimney tips and burners \$8.18; bray burners \$97.50; ten gallons of pentain \$30.00 sight cocks \$23.50. These items were purchased from the United Gas Improvement Company and they rendered bills to the Des Moines Gas Company for them, they came to Des Moines and were charged to the store room account and then were issued from the store room account as they were put up. The bray burners constituting the largest amount of this item are the tips which are used on fixtures and which are imported in very large quantities by the United Gas Improvement company because they are enabled to get better prices and better facilities for getting through the custom house and so on than the local company could do. The ten gallon- of pentain, pentain is a special hydrocarbon oil for standard candle power observation used in the photometer. The sight cocks are cocks which are placed in the generators and superheaters with a glass so that by opening a cock you can look through the glass and see what the heats in the superheaters and carburetors are, see how hot they are inside. They are called sight cocks.

Q. There is included in the total of this item a small amount that is not charged up or classified under storeroom account. What is that?

A. That is \$6.22 which is classified to construction author- 4557 izations. That is simply a small expense, that is for a hydrometer which is an instrument used for measuring dew point of the gas in connection with the proof of temperature of the machine. It is a glass instrument.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

OCTOBER 4, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JANSEN HAINES, continuing his cross examination, examined by Judge Geo. H. Carr, testified:

Q. Mr. Haines, when we adjourned last evening you were then giving an analysis of several of the items you bring into the totals of the classified account as contained in Exhibit 59. Without taking the time to go through all of these items, I ask you whether in response to the demand made upon you by General Byers, you have prepared data from which you can give, if desired, an analysis of each of these accounts showing what entries entered into each of these totals and the vouchers covering such items and if you can produce them if desired.

A. I have. I have prepared a complete analysis of each one of the accounts referred to in Exhibit 59, taking each amount as shown in Exhibit 59, showing how the amount given in Exhibit 59 is arrived at from our books, where it is entered on our books, where the voucher is to be found, and index to the voucher, so that the amounts may be traced back to each individual voucher, or the vouchers showing the amounts contained in each item.

Q. In the analysis you made of the account contained in Exhibit 59 for the year ending February 28, 1907, in answer to interrogatories put to you by General Byers, you stated, as I understand it, that for a portion of that year there were items in the account consisting of credits to the United Gas Improvement Company for money expended by them in the purchase of supplies and materials from other concerns than the United Gas Improvement Company, owing to the shortage, this being done owing to the shortage of money by the Des Moines Gas Company, and that some time during that year that practice was abandoned, so that thereafter the only credits that appeared in the account on account of material and supplies furnished were credits to the United Gas Improvement Company for material and supplies furnished by it to the Des Moines Gas Company, and that in the cases where the supplies and materials were bought from other concerns, the accounts did not go into the U. G. I. accounts, but the materials and supplies were ordered direct and billed direct to the Des Moines Gas Company, and paid direct; now is that a fairly correct statement of the situation as you understand it?

Objected to on part of defendants as not proper cross examination and not a correct statement of the record, immaterial and not the best evidence.

A. From March 1, 1906, to I believe November, 1906, the material which was purchased by the Des Moines Gas Company, or a

large part of it was paid for by the United Gas Improvement Company and after the bills or vouchers for the material had been approved by the manager of the Des Moines Gas Company and the payments so made were entered on the books of the Des Moines Gas Company as a credit to the United Gas Improvement Company. In other words the United Gas Improvement Company advanced the money of the bills of acceptance, the same as the current foreign practice.

The MASTER: That was up to November 1906?

A. Yes, sir. Now after November 1906, the Des Moines Gas Company ordered the material through its purchasing agent acting for the Des Moines Gas Company and the bills for the materials so ordered were rendered directly to the Des Moines Gas Company and were paid upon approval of its manager out of the funds on deposit to the credit of the Des Moines Gas Company in Des Moines. Among those bills for material and supplies and services are bills which were rendered by the United Gas Improvement Company for materials and supplies and for services furnished by the United Gas Improvement Company to the Des Moines Gas Company. These bills were vouchers and approved and paid by the Des Moines Gas Company the same as other bills from other merchants or manufacturers.

Q. When subsequent to the period you have stated materials or supplies were purchased from other concerns, that is concerns other than the United Gas Improvement Company, if I understand you correctly, these accounts did not go into the account with the United Gas Improvement Company but were handled directly with the concern from which the purchase was made?

A. That is right.

Q. And that custom, I think you said, was inaugurated about the 1st of November, 1906?

A. Yes, it was in November, 1906.

Q. Now from that time on until the close of the period covered by this analysis or classification of the accounts, Exhibit 59, has that same practice obtained?

A. That same practice has obtained.

The MASTER: If I understand you correctly, you treated the United Gas Improvement Company in all matters where you purchased from them just the same as any other persons from whom you purchased?

A. That is correct.

Q. Was there anything further?

A. These sheets indicate by a decrease in the amount which is credited to the United Gas Improvement Company. After the first year that amount drops down.

Q. What was the total of the account ended with February 28, 1907?

A. That was \$56,345.47, which included \$46,000 worth of cash.

The MASTER: \$46,000 worth of cash?

A. Yes, that cash was advanced for the payment of general corporate purposes of the Company in Des Moines.

The MASTER: In other words, you did not have the money on hand in Des Moines to meet your bills against the Company and consequently you had to borrow it, or they let you have it; is that right, the U. G. I. Company?

A. No, sir, not at that time.

Q. That is prior to November?

A. That is not quite correct. This money was advanced in addition to the credits which were given to the United Gas Improvement Company for the bills which they had paid for the account of the Des Moines Gas Company.

The MASTER: That is what I meant.

A. But that \$46,000 was used to pay pay rolls and local bills for which the United Gas Improvement Company did not take credit, and were paid in Des Moines.

The MASTER: In other words, you got the money here and your account here and used it in your monthly and daily business?

A. Yes, sir.

Q. Now for the year ended February 28, 1908, I see the total account was \$18,212.13. Was there any cash borrowed entering into that?

A. Yes. Out of that \$18,000 nearly \$16,000 was borrowed.

Q. The sum total of the other items are the difference between \$15,000 and \$18,212.

A. About \$2,400.00 is the sum total of the difference.

4562 Q. Turning back to the year ended February 28, 1907,

I notice the next largest item is for supplies, special fittings, material and inspection \$7,494, while in the next year that item seems to have gone down to \$294.28; is that accounted for, in part at least, by the change in the method of doing business you already explained?

A. Yes, sir. In 1908 and subsequent years, of course the United Gas Improvement Company only received credit for the material which is actually furnished from its own store room.

Q. Now for the next year, I notice the account had shrunk to \$2,510.25; there is no cash borrowed in that?

A. There is no cash borrowed in that year.

Q. And the stationery and office supplies, that item had gone to \$73.42?

A. I think that is the wrong figure. You mean special fittings material and inspection had fallen to \$160?

Q. Oh, yes. The next year the total had gone to \$7,458.42; was there any cash in that?

A. There is no cash in that.

Q. And the last year, ending December 31, 1910, the account had gone up to \$27,256.60; there was considerable cash in that?

A. Out of that \$27 thousand odd dollars there was \$19,000 or a little over in cash borrowed.

Q. Did you prepare an analysis of that, Mr. Haines?

A. I have an analysis of each one of those years, showing a reference to each voucher which goes to make up the totals in these various items.

Q. Did you have a statement made up of these accounts showing an analysis with respect to the change?

A. I am not quite sure.

4563 Q. Well, we will pass that.

A. I have the analysis for the year 1907 with all the vouchers covering every item shown on Exhibit 59; also for 1908, 1909 and 1910, with the reference to the page in the general books of the Company in which these entries may be found.

The MASTER: The reports of the experts give these amounts, and unless there is some special matter to be called out by the other side, I don't think there is any necessity of going into this.

Judge CARR: No, General Byers didn't want that.

Mr. BYERS: I do not want to be brought into the record with a statement of what I wish to be brought in here.

The WITNESS: I understood you asked me for this analysis and I prepared it.

Judge CARR: I don't see why you should be offended; that is the reason why we brought this in.

Q. Now just one further question. In the account ending December 31, 1910, appeared an item opposite the name of J. B. Klumpp and Mr. Byers asked you something in regard to Mr. Klumpp; I wish you would state to the Master who Mr. Klumpp is and what is his connection if any with the United Gas Improvement Company?

Mr. BYERS: That was fully gone over and that question was asked Mr. Haines.

Judge CARR: Is there any reason why I can't ask the same question?

Mr. BYERS: Nothing, only it is padding the record with immaterial matter.

A. On page 4493 of the record I would like to correct both General Byers' question and the answer. The name is written J. B.

4564 Klumb and it should be Klumpp. The record shows it spelled wrong. Mr. Klumpp is a graduate of Stephens Institute of Technology, about 1894. He entered the employ of the United Gas Improvement Company about a year before I did, and I have known him intimately since my connection with the United Gas Improvement Company in 1896, having been assigned to work with him different times and different places. He has for many years been employed as an expert engineer by the United Gas Improvement Company; he has operated and constructed gas works while in their employ and has made a specialty in later years of investigations for the United Gas Improvement Company of properties in which they were contemplating taking an interest. He was appointed as one of the gas experts by the National Civic Federation to which Mr. Bemis referred in his testimony, to go abroad and

investigate the properties of the gas companies and the municipal gas works in England, and made a very extensive and exhaustive report on his investigations there which is contained in the report of the National Civic Federation. He has devoted some of his time to the investigation of patents and processes and of costs of the operation of gas works and of the cost of construction of gas works, and has prepared a great many reports, both for the United Gas Improvement Company, and for others, detailed as an employee of the United Gas Improvement Company at the request of other parties who contemplated taking an interest in properties under investigation. He has written a number of technical papers for the journals and various institutes. He prepared among other things, the notes on depreciation that were offered in evidence.

Mr. BYERS: The celebrated Exhibit 8?

A. The celebrated Exhibit 8.

Q. Is that a study on depreciation?

4565 A. Yes. He prepared that from his experience and knowledge of the subject contained in it. He was employed for some time in arranging and directing the work in making the inventory in Des Moines.

Q. One other question. I notice in the credit given the United Gas Improvement Company on account of Mr. Klumpp, there is no charge for time, but only for expenses; who does Mr. Klumpp represent, in whose department is he?

Objected to on part of defendants as having all been gone over by this witness.

A. He is the representative of Mr. Walton Clark, second vice president of the United Gas Improvement Company, and his title is Inspecting Engineer for that Company.

Redirect examination by Mr. BYERS:

Q. Mr. Haines, it was about two weeks ago, was it not, that I furnished you Mr. Sangster's memoranda covering these several accounts and asked you to have prepared and furnished to me an analysis of those accounts, was it not?

A. I think the record will show the date; I don't know the date; approximately that I suppose.

Q. In response to that after being requested for it again, you handed to me Exhibit 59, did you not?

A. I had Exhibit 59 prepared.

Q. Exhibit 59 is the one you have prepared for me, is it not?

A. Yes, sir.

Q. Now why is it Mr. Haines, that you persist in reading into the record and stating into the record, time and time again, repetitions of these papers and these exhibits?

4566 Objected to on part of complainant as a very improper question and one which is not true, to quote counsel's own words; it is a deliberate attempt to insult the witness.

Q. Isn't it because you are trying to carry out here, what you

said you would, make this case so expensive that the City would never pass any other similar ordinance?

A. Will you state where I said that and to whom?

Q. Didn't you say it?

A. I don't think I did.

Q. Didn't you say to a business associate in this town this case had already cost your Company \$100,000 and that you expected it would cost \$175,000 and that you expected to make it so expensive to the City that they wouldn't pass another ordinance of this kind?

Objected to on part of complainant as immaterial and improper.

A. I have no recollection. If I said it, I said it facetiously, because it is not true.

Q. Didn't you say it within ten days ago?

Complainant interposes same objection last made.

A. I have no recollection of it whatever.

Q. Any part of it?

A. I may have said the cost of this trial which was instigated by the City Council would probably amount to \$100,000.00.

Q. Didn't you say it had already amounted to \$100,000?

A. The books will show whether it has or not.

Q. Isn't it true now?

Objected to on part of complainant as immaterial and because this class of interrogatories have gone to the limit.

4567 Q. Didn't you, when that gentlemen asked you how you could justify any such expenditure as that, didn't you respond by saying to him that you could afford to do it, because if you did not do it, the next city council would probably pass an ordinance again lowering the price of gas?

Complainant interposes the same objection last made.

A. I have no such recollection.

Q. Let me ask you another question, Mr. Haines. Didn't you say to this same gentleman, a business associate and friend, that you intended to make this case just as burdensome and continue it just as long as you could in order to teach city councils a lesson?

Complainant interposes the same objection as last made and because it is a mere repetition of the question already asked.

A. General, I don't think that is true in any sense of the word. I think that is an absolutely false interpretation of what I said.

Q. What did you say?

Same objection as last above made.

A. I don't recall the words I used. I certainly never used any such words as that, unless I am very much at fault in my recollection.

Q. Didn't you say to the same gentleman and to two other gentlemen that the 90 cent rate was not what bothered you—

Judge CARR: We interpose the same objection and submit to the

court that the question, if it is for the purpose of refreshing the recollection of the witness, or for the purpose of impeachment, or any other conceivable purpose, it ought to be more specific and the time and place should be stated as to where the alleged statement was made.

Question continued. But that you wanted to make this law-
4568 suit so expensive and so burdensome upon the city that there wouldn't be any further reduction?

Complainant interposes same objection last made.

A. No, I didn't say that.

Q. Do you say you didn't say that within two weeks?

A. No.

Q. Now in that same conversation you did say, didn't you, that the United Gas Improvement Company had nineteen of their best men in this case and they had been in the case for weeks and would cost at least \$100,000?

Complainant interposes the same objection last made and the further objection that it assumes there was a conversation of that character inquired about.

Question withdrawn.

Q. You have already paid Mr. Baehr over \$8,000.00 haven't you?

Objected to on part of complainant as being immaterial.

A. Mr. Baehr has been paid the regular rate of compensation which experts of that kind receive customarily, and when his bills were presented they were paid in the regular routine of business.

Q. Which amounts to what I have said?

Complainant interposes the same objection last made.

A. I have no recollection. The books will show; they are all entered in the regular form.

Q. Is this because you want to get the books into the record?

A. I answered your question to the best of my knowledge and belief. If you are not satisfied with my answer, I suggest you go to the books and find out.

Q. You referred to the Company's cash book, No. 1, yesterday, have you got that here?

The MASTER: General, I want to suggest to you that this
4569 witness is now your witness and of course you can not impeach him.

Mr. BYERS: I know; I am bound by whatever the witness says.

Judge CARR: I cannot conceive the possible purpose or how this in any wise is material as to what amount was paid to the experts.

The MASTER: I don't think so. It is competent evidence in my judgement. That they are employed by you and paid big prices, I am satisfied without any proof of it. I am satisfied also the city has paid good prices, and it is proper and competent evidence to show that each one is in the employ of the parties for whom they are testifying, and always when a witness is interested, biased or prejudiced

or has a feeling in the matter, especially when he testifies on matters of opinion.

Judge CARR: Isn't it true that it is proper cross examination of the witness for the purpose of testing him, and is it material matter that you may go into with collateral proof?

The MASTER: He may show it independent of that. At all events, it is evidence that is offered in this case; as to what weight it will receive and whether it is competent is another proposition.

Q. Now, Mr. Haines, to get back to Exhibit 59—

A. I have the cash book here you asked about.

Q. When you brought Exhibit 59 in the form it is in and delivered it to counsel for defendants, you intended counsel for the defendants to understand that was a correct analysis of the account and memoranda which was furnished to you two weeks ago, did you?

A. The memoranda which was furnished a few weeks ago was purely a compilation of figures which had no reference, could
4570 not be compared with our account because it was not properly classified.

Q. Just notice the question.

A. I am answering your question now. I have not finished my answer.

Q. Question repeated.

A. The account was not correct. It purported to be an analysis of the U. G. I. account with the Des Moines Gas Company and as it was not correct, not properly classified, it could not be adjusted to our books, and as I understood your request was for an analysis of this account. I furnished the analysis as shown in defendant's Exhibit 59.

Question repeated.

The MASTER: The question was did you intend it to be a correct analysis.

A. I intended Exhibit 59 to be a correct analysis of the account.

Q. Now, Mr. Haines, I went through carefully, as carefully as I know how, with you, of the first sheet of Exhibit 59 and all the items in the first column for the purpose, as I told you at the time, of getting at the method of keeping those accounts and the manner in which you did business with the U. G. I. and with their men, and then to save time, I put the general question to you as to whether or not the method was not continued, and the same general method was not continued, and the same general answers would be made if I went down through these sheets, and you, as I remember it, answered in the affirmative. Now Judge Carr this morning asks you with respect to a change in the method of doing business. That was brought out on my examination, as I remember, that after November, the first year, there was a change, but no change, was there, in the general method of crediting up to the U. G. I. upon statements from them, or other services of their men, or expenses
of their men, there was no such change in that respect, was
4571 there?

A. Yes, sir; there was.

Q. Why didn't you tell me so when I examined you?

A. I have already described it.

Q. You say you have already described it?

A. I have.

Q. What change was there in the manner in which you treated the services of one of these secret inspectors, as you refer to them, after November 1906, from the way you did before 1906.

A. Will you tell me how I referred to them.

Q. You said they came here secretly and unbeknown to me and checked up the honesty of the local management; was there any change in the method of dealing with Mr. Harrison and his account?

A. Prior to November 1907, credit was taken on the books of the Des Moines Gas Company in favor of the United Gas Improvement Company for Mr. Harrison's time and expenses while employed in Des Moines in making an audit of the books of the Des Moines Gas Company. Subsequent to that time the United Gas Improvement Company furnished a bill for the services so rendered by Mr. Harrison, or the other auditors, and these bills were paid by the Des Moines Gas Company, by checks drawn on the Des Moines banks, the same as other accounts of merchants other than the United Gas Improvement Company.

Q. How does it come there are credits on your books to the United Gas Improvement Company for these men after 1907. Now I find here a credit to Mr. Harrison to the U. G. I. in the sheet, or analysis for the year ending December 31, 1909, credited to the U. G. I. for Mr. Harrison \$383.35. Now that is the same Mr. Harrison, is it not, for whose services a credit to the U. G. I. of \$356.55 is found on the first sheet, the one I examined you about, 4572 under the heading year ended February 28, 1907?

A. Yes, sir.

Q. The same man?

A. Yes, sir.

Q. The same kind of services?

A. Yes, sir.

Q. And his services credited to the U. G. I. in the same way as it was in 1907?

A. No, not in the same way. This service in 1909 is simply credited on the account at the end of the month and paid at the end of the month, and prior to that it is carried as a continual credit.

Q. You mean prior to that time you didn't pay it promptly?

A. It is carried as an open account.

Q. But at the end of the month you paid the bill you owed the United Gas Improvement Company, whatever it was?

A. Just the same as any other merchant.

Q. That is all you mean by a change in the method?

A. Exactly.

Q. Your counsel has referred to the cash as it appears in this Exhibit 59, I think some each year; \$46,000 on the first sheet of Exhibit 59, and \$15,000 on the next sheet?

A. Yes.

Q. And nothing on the third sheet?

A. Nothing on the next sheet.

Q. And nothing on the fourth sheet.

A. No.

Q. And \$19,033.80 on the last sheet?

A. Yes.

Q. Now that represents money, as I understood you before, that the United Gas Improvement Company had advanced to
4573 the local company in cash for use of the local Company in the business here?

A. Cash which the United Gas Improvement Company advanced to the Des Moines Gas Company, yes sir.

Q. Now every dollar of cash that the United Gas Improvement Company furnished to the Des Moines Gas Company for use in the business here in Des Moines, was paid back with interest at 6% was it not?

A. I have forgotten really, General, whether there is any owing now.

Q. Up to December 31, 1910?

A. I would have to look at the books to tell you. Your own bookkeepers should be able to answer that better than I can, because they have been over that more recently with that in view. But we can refer to the books and show you whether that is true or not.

Q. Let me put it this way: This sheet goes up to December 31, 1910, and shows on here during that year you had \$19,033.80; that money has either been paid back or else the United Gas Improvement Company holds the note of the Des Moines Gas Company for the money?

A. I think that would be correct. It has either been paid back or else it hasn't.

Q. Or else it has a note drawing six per cent interest?

A. I think that is correct, General; I wouldn't swear to the correctness of your statement unless I saw the books.

Q. So that whenever the United Gas Improvement Company advanced money to pay a bill as you suggested yesterday to Judge Carr, and gave your Company or this local plant the benefit of the discount, the United Gas Improvement Company would get either the Des Moines Gas Company at the end of the month, if they didn't have the money, drawing six per cent interest, or would get six per cent interest on the open account.

4574 A. In a sense that is correct. Of course the United Gas Improvement Company would give us credit for one per cent on ten days and charge us six per cent per annum on a note; that would mean a saving to us of possibly 15 or 20 per cent.

Judge CARR: You will notice on the first page you see credits cash paid back \$28,744.78 in bills payable.

Mr. BYERS: Which means notes.

Q. It is correct now, that is all paid back or else the Company has a six per cent note?

A. All but the balance of \$4,402.62 which would be paid in January of 1911.

Q. Then it is all paid back. Now that is true too of all these other credits, they were either paid at the end of the month or the U. G. I. was credited with interest on the balance, or a note was given drawing interest.

A. Well no, that is not exactly correct; it would only be correct prior to November 1907. From March 1st, to I think it was November 1st, 1907, the interest was charged on the open accounts and paid to the United Gas Improvement Company by the Des Moines Gas Company, or credit given for it for such interest on account of the United Gas Improvement Company for the amount of the bills for materials which the United Gas Improvement Company had paid for the account of the Des Moines Gas Company.

Q. Is it fair to sum this matter all up by saying, that during the first year, 1907, whenever the local plant did not have cash to take care of its bills, the United Gas Improvement Company of Philadelphia furnished the money and were given credit for it on the books and paid back with interest, and the same has been true during the entire period from March 1906 until December 31, 1910.

4575 A. There may be some truth in that statement; in a general way that has been the function of the United Gas Improvement Company; its relation to this Des Moines Gas Company to furnish the funds when they were necessary for the construction and development of the property, its operations in Des Moines. The necessity for these funds naturally would fluctuate from year to year and month to month.

Q. But Exhibit 59 shows all of that class of funds?

A. It shows the transactions as they show on our books.

Q. It shows all the money that was furnished in that way.

A. Well, it shows the transactions as shown on our books; I can't answer it any other way.

The MASTER: What he wants to know, whether it shows all?

A. Yes, it shows a correct analysis of all of this account.

Q. Now just a word or two more about these auditors. You did not cover these auditors in the same way yesterday as you did when I examined you about them, Mr. Harrison and Mr. Porter. Now which was correct that they notified you they were coming, or was your first statement that they came unbeknowns to you and came for the purpose of checking up the honesty of the local management, which statement is correct?

Objected to on part of complainant as a mere repetition and an attempt to pad the record, and containing the assumption that there is a conflict in the statements, which is contrary to the record.

A. There may have been a misunderstanding on your part. Let me answer the question by simply describing the system.

Q. You told me the other day, and I took your statement for it, when I was asking you about Mr. Harrison, you told me they did not come at your request, but the United Gas Improvement
4576 Company sent them here and that they came unbeknown to you and sent out these slips and have them returned to

them, and the purpose of their visit here was to check up the honesty of the local management; now that is correct, is it?

Complainant interposes same objection last above made.

A. I don't think your statement is a correct statement of what I testified to, but it is true to this extent; I have no previous notification of the time of the arrival of the auditor in Des Moines. In other words, he came here without any notification from me as to his arrival. I knew he would come, in a general way, sooner or later.

Q. You knew that was the method that the United Gas Improvement Company had in carrying on their business and checking up their properties that they were interested in?

A. I don't know that your statement is exactly correct.

Q. Make whatever explanation you want of it.

A. Well, I think I made the explanation.

Q. You stated yesterday, in answer to the Master's question, a question I think was asked you a couple of weeks ago and that was whether the treasurer at Philadelphia had a duplicate set of books, Journal and Ledger, and you say now that he has; you are correct about that?

A. I think I have been correct about that all through. It is probably due to a misunderstanding on your part as to exactly what he had.

Q. I just want to get what you got here now, that you say he has a duplicate of it. You stated the treasurer keeps a duplicate journal and ledger. Have you got the journal and ledger here that you say he has a duplicate of in Philadelphia?

A. You mean in the court room?

4577 Q. Yes.

A. The statement I meant to correct yesterday was that I have no copy, I do not keep a copy in Des Moines of his check book and pass book, which are the only books he keeps as treasurer of the Des Moines Gas Company in Philadelphia. But I have the journal and ledger here in Des Moines, and at the close of the month's business I send him a transcript of the entries made on these books and the entries go into two similar books which he keeps in Philadelphia, so that his accounts in Philadelphia correspond with the accounts we keep here.

Q. That is exactly what I wanted, and the reason I wanted it is to know whether the treasurer in Philadelphia can turn to his ledger at any time and ascertain the state of the cash account of the Des Moines Gas Company up to the time it is rendered?

A. Yes, up to the time at which the entries are closed at the end of the month. He would know within probably fifteen days or eighteen days what they had been on the first of the month.

Q. So that the treasurer of the Des Moines Gas Company who is also treasurer of the United Gas Improvement Company, could ascertain at any time from an examination of his ledger the exact state of the cash account of the Des Moines Gas Company within at least fifteen or twenty days of the time the entries are made here.

A. Certainly; as treasurer of the Des Moines Gas Company he would be the person to know and he would know.

Q. That is the reason I asked about the duplicate books.

The MASTER: That is not a duplicate of all the books of the Company, but a duplicate of those that pertain to the cash?

A. Only the books which refer to what we call the general books, which refer to the operation of the Company, he has no duplicate of course, of the consumers ledger or the records of meters or anything of that kind, which would be so bulky that we couldn't send the transcripts back and forth.

Q. He does have a duplicate journal and ledger, just such as you keep here?

A. Just what I have stated; what we call our general books.

Q. Now let me have the cash book No. 1 a minute. (Witness produces book.) The book you have handed me, Mr. Haines, is the cash book of the Des Moines Gas Company and contains a record of the cash transactions of the Company, beginning on the 1st day of March, 1906, and continuing down to the 31st day of December, 1910.

A. Yes, sir; I believe so.

(The book just described is marked Exhibit 60.)

The defendants in connection with the testimony of this witness offer in evidence all that part of Defendant's Exhibit 60, under the dates beginning March 1, 1906, to and including the entries covering December 31, 1910.

Objected to on part of the complainant as immaterial and as simply padding the record.

Q. Is there more than one ledger?

A. I think not, this ledger No. 1, I don't think there is another ledger than this.

The MASTER: There isn't more than one for that period, that covers the entire life of this Company?

A. That is my understanding, these two books cover the period.

The MASTER: That is the life of this company?

A. No, I am not correct in that either.

Q. Is there more than one ledger?

4579 A. I believe there are two, General.

Q. Covering the period from March 1, 1906, to December 31, 1910?

A. Yes.

Q. Two ledgers?

A. Yes.

Q. More than one journal?

A. There are three journals. There are two journals and a part of the third.

Q. The journals cover the items that appear in the ledger?

A. The items that appear in the ledger and cash book—I mean the ledger contains the items that appear in the journal and cash book.

Q. What are the three journals, what is the name of them?

A. Journal No. 1, journal No. 2, and pages up to and including page 184 on journal No. 3, covering the period from March 1, 1906, to December 31, 1910.

Q. Now just one word more and then I think I am through. You said Mr. Norris' time was paid for in a measure by the salary that is paid to Mr. Clark; that is not true, is it?

A. It is not true as you state it; I didn't so state it. A part of the service which is rendered by Mr. Norris and his assistants in the department which he represents is compensated for in part by the salary which is paid, \$2,500 to Mr. Clark, and \$10,000 to the officers of the Company, which goes to the United Gas Improvement Company.

Q. Did you know about that arrangement when it was made?

A. Yes.

Q. Why didn't you just credit up the United Gas Improvement Company with the \$10,000 instead of having your books show what wasn't true?

4580 A. I don't know what you mean by our books show what isn't true?

Q. That these gentlemen are actually getting a salary?

A. Do the books show that they are actually using the money paid to them for their own personal use?

Q. Is that all the answer you want to make to that question?

A. I don't understand the question you put. In the first place you imply that the books are not true. I take exception to that statement.

Recross-examination by Judge CARR:

Q. I got the impression from your evidence in regard to a duplicate set of books, as it has been called, that you had prepared a transcript of the journal and a transcript of the ledger and sent that down to Philadelphia; now is that strictly correct?

A. We prepared a transcript of the journal; it wouldn't be necessary to prepare a transcript of the ledger, because the ledger accounts are all entered from the journal entries.

Q. Did you send a trial balance?

A. We send a trial balance of the ledger and a complete transcript of the journal entries.

Q. Now when that goes to Philadelphia the transcript of the journal is entered upon their ledger and then the balance there appearing compared with your trial balance?

A. That is correct. We could substitute the journal in Philadelphia for ours in Des Moines at any time without any error or interruption.

Q. The journal and ledger kept in Philadelphia is made up in the way you now state?

4581 A. Yes. I of course don't mean to say we made a transcript of the ledger, because that would be unnecessary; but we make a complete transcript of our books here and that is forwarded to Philadelphia and entered on the books which Mr. Lillie keeps there.

particular line of work for the United Gas Improvement Company do you do?

A. I have charge of the accountant end of the business for the United Gas Improvement Company; also the preparation of financial statements and statistical matter.

Q. Now as the head of the auditing department of the United Gas Improvement Company, what territory do you cover?

A. The Companies in which the United Gas Improvement Company is a shareholder.

Q. Can you give us a list of the companies?

A. They have been mentioned here several times during this hearing. It would only be going over the same matter again.

Q. Some of them have been mentioned. What I would like to have from you now, if you will give it to us, a list of the Gas Companies of which the United Gas Improvement Company owns substantially all the stock and which are covered by you and your department?

Objected to on part of complainant as irrelevant and immaterial, in so far as it goes into matters of companies outside of the Des Moines Company.

4585 A. If you will kindly let me have the book you were reading these companies from the other day I would be glad to read them off for you.

Q. You furnished the material that is in that Manual of Moody's, didn't you?

Mr. GUERNSEY: You will note he did not ask for companies in which the United Gas Improvement Company is interested as a shareholder.

Q. I now hand you the Manual referred to and I wish you would give me the names and locations of the gas companies in which the United Gas Improvement Company owns substantially all the stock, and the companies that are under your supervision, or rather under your department.

Complainant interposes same objection, and also object to the latter part of the question as to "under your department", because it is indefinite and uncertain. We do not know what is meant by the word "under" and do not believe the witness does.

A. I could read the names of the companies and their location as far as they are under my supervision.

Q. Give me the names of the companies and the towns.

Complainant interposes same objection last made.

Mr. GUERNSEY: Those companies in which the U. G. I. owns substantially all the stock?

Mr. BYERS: Yes.

A. Allentown Gas Co., Allentown, Pa. Burlington Gas Light Co., Burlington, Iowa. Chester Co. Gas Co., Westchester, Pa. Connecticut Railway & Lighting Co., New Haven, Conn. Consumers Gas Co., Reading, Pa. Dauphin County Gas Co., Steelton, Pa. Des

Moines Gas Co., Des Moines, Iowa. Equitable Illuminating Gas Light Co., Philadelphia, Pa. Essex & Hudson Gas Co., Newark, N. J. Fullton County Gas & Electric Co., Gloversville, N. Y. Harrisburg Gas Co., Harrisburg, Pa. Hudson County Gas Co., Jersey City, N. J. Kansas City Gas Co., Kansas City, Mo. Merion & Radnor Gas & Electric Co., Ardmore, Pa. New Gas Light Co., Janesville, Wis. Omaha Gas Co., Omaha, Neb. Paterson & Passaic Gas & Electric Co., Paterson, N. J. Pensacola Gas Co., Pensacola, Fla. St. Augustine Gas & Electric Light Co., St. Augustine, Fla. Savannah Gas Co., Savannah, Ga. Sioux City Gas & Electric Co., Sioux City, Iowa. Sioux Falls Gas Co., Sioux Falls, S. D. South Bend & Mishawaka Gas Co., South Bend, Ind. Syracuse Lighting Co., Syracuse, N. Y. Vicksburg Gas Co., Vicksburg, Miss. Wyandotte County Gas Co., Kansas City, Kans. That about covers the list generally.

Q. How about the Concord Light & Power Co.—are they a gas company?

A. Yes, but the United Gas Improvement Company haven't a majority of the stock.

Q. And the Georgia Railway & Electric Co.?

A. The same thing.

Q. How about Minneapolis?

A. The same thing.

Q. They only have a part of the stock in that?

A. They have not a controlling interest in it.

Q. The Charleston Consolidated Railway and Lighting Co., Charleston South Carolina?

A. That is not in this list.

Q. Don't they own it now?

A. Yes, they own a majority of the stock.

Q. And the Conshohocken Gas Co., in Pennsylvania, do they own substantially all the stock?

4587 A. Yes, sir.

Q. And the Northern Indiana Gas & Electric Co.?

A. The same thing is true there; they own a majority of the stock.

Q. Substantially all of it?

A. No, I wouldn't say substantially all of it; they own the majority of it.

Q. There isn't more than two or three hundred dollars anybody else owns?

A. Yes, sir; considerably more than that.

Q. Have you looked it up recently?

A. Yes.

Q. But they own a majority of it?

A. They own a majority of the stock.

Q. How about the Northern Liberties Gas Company?

A. I don't think they own any of the stock.

Q. Do they lease it?

A. Yes.

Q. They operate the plant?

A. Yes.

Q. And the Peoples Gas Light Company of Manchester?

A. The same thing is true there.

Q. They operate that but don't own it?

A. Yes.

Q. The same is true with the Philadelphia Gas Works?

A. Yes, sir; it is owned by the City of Philadelphia.

Q. And the Public Service corporation of Newark, New Jersey?

A. They are minority stockholders in that corporation.

Q. The Syracuse Lighting Company?

A. That is what I gave you.

Q. Now, as I understand you, you have a thoroughly
4588 organized department for the purpose of auditing the books
and accounts of all these concerns that you named?

A. Yes, sir.

Q. You have under you a number of competent gentlemen who
travel about to these different places auditing the books of these
several companies, just as they have here in Des Moines?

A. Yes, sir.

Q. Mr. Harrison is in your force?

A. Yes, sir.

Q. And Mr. Porter?

A. Yes, sir.

Q. And these other gentlemen whose names have been read off
of Exhibit 59 as auditors?

A. That is right.

Q. And I suppose you also audit the general books of the U. G. I.
itself?

A. Yes, sir.

Q. So that you are familiar with the books and records of the
U. G. I.?

A. I am.

Q. What does the manager of the Sioux City Company, what
salary does he get?

Objected to on part of complainant as being incompetent, irrele-
vant and immaterial, having no bearing on the issue in contro-
versy here.

A. I do not pretend to carry the transaction of the United Gas
Improvement Company in my head. If I could, it would not be
necessary to have so large a force.

Q. Nor such an expensive force?

A. I wouldn't say expensive force.

4589 Q. You say you don't know what his salary is?

A. No, I do not.

Q. Do you know what salary the manager of the Burlington Com-
pany gets?

Complainant interposes the same objection.

A. I do not.

Q. Now how many of these companies that you have named Mr.

Curran, are dealt with by the United Gas Improvement Company in the same way that the Des Moines Gas Company is dealt with of a business character?

Complainant interposes the same objection, and further it is incompetent, calling for a conclusion and comparison.

A. I don't know exactly what you mean by dealt with.

Q. I mean whether the business operations the United Gas Improvement Company carries on with them is any different.

A. The general system is carried out with all the companies.

Q. That general system has been in vogue for a good many years?

Complainant interposes the same objection.

A. Yes.

Q. How many years have you been with the Company?

A. Twenty-two years.

Q. And that system has been carried on all that time in a general way?

Complainant interposes the same objection.

A. I could hardly answer that for the reason, although I have been with the company twenty two years, I have not been with them as comptroller.

Q. Anyway, it has been carried on for the last ten years in the same way?

Complainant interposes the same objection.

4590 A. I would say yes, in a general way.

Q. Now, of course, the United Gas Improvement Company keeps an account with all these different companies on their general books?

Complainant interposes the same objection.

A. Yes, sir.

Q. Did you furnish the statement that appears in Moody's Manual from which you read the names of these companies?

A. I did not.

Q. Was it furnished from your office?

A. I should imagine it was furnished from the office of the United Gas Improvement Company. I cannot recall just who prepared that statement.

Q. Well the statement is correct in its general make-up, isn't it?

Objected to on part of complainant for the reason that it does not appear that the witness prepared it or examined it or knows anything about it.

Mr. BYERS: Mr. Douthirt informs me it is furnished from his office.

The defendants at this time offer in evidence that part of the volume identified by the witness and designated The Moody Manual Service of 1910, found on pages 2276, 2277, 2278, 2279, 2280, 2281,

2282, 2283 and that part of page 2284 that includes a description and some financial statistics with reference to the Wyandotte County Gas Company of Kansas under the general head United Gas Improvement Company, Capital Stock and Dividends, Net Earnings And Dividends, Years Ending Dec. 31. Income Account, Years Ended Dec. 31, and which gives a list of the several companies, the volume being for the *the* year 1910 and the same is now 4591 read into the record in part as follows:

Complainant objects to this extract from the Manual of Railroads and Corporation Securities 1910, called on the back the Moody Manual Service 1910, Roger W. Babson, Contributing Editor, to each part thereof as irrelevant and immaterial, because each of these statements relates to the business and transactions of the United Gas Improvement Company, and neither of them relate to the business or transactions of the Des Moines Gas Company. It is further objected to as incompetent, because not something that is given out by or authorized by the Des Moines Gas Company, the complainant, and obviously containing very many facts which that company does not give out and as to which it has no knowledge and over which it has no control.

Mr. BYERS: It reads in part as follows:

United Gas Improvement Company (The).

Organized June 1, 1882, under "Manufacturing Act," of Pa.; reorganized May 8, 1885, under an old special charter, with power to construct and maintain or manage any work, and furnish all needful material, labor, implements, instruments and fixtures of any kind, with full power and authority to hold and own securities of any form either as collateral or otherwise and to dispose of same. Charter perpetual, and was originally issued to Union Contract Co. The Company's business is the building, purchasing, leasing and operating gas works and electric plants.

Capital Stock and Dividends.

Authorized, \$55,520,700; outstanding May 1, 1910, \$55,476,900; par, \$50. Stockholders voted Feb. 9, 1910 to increase 4592 the capital stock from \$50,473,350 to \$55,520,700, for the purpose of paying on March 1, 1910, a special stock dividend of 10% to holders of record Feb. 15, 1910. Such dividend was evidenced by non-interest bearing scrip, exchangeable at its par value for capital stock at par, if presented for exchange in lots of \$50 or multiples thereof, on or before June 30, 1910. Scrip presented for exchange into stock (1) on or before March 31, 1910, participated in the dividend paid in April; (2) scrip presented after March 31, 1910, and on or before June 30, 1910, participated in the July dividend; (3) if not presented on or before June 30, 1910, scrip is redeemable only in cash at its face value, without interest.

Stock dealt in on Philadelphia stock exchange. Transfer office,

Broad and Arch Streets, Philadelphia. Registrar of stock: Fidelity Trust Co., Philadelphia.

Dividends have been paid at the rate of 8% per annum since 1888; payments quarterly, Jan. 15. In Jan., 1896, an extra dividend of 15% was paid in convertible scrip and 10% extra in the same form (see above) on March 1, 1910.

Net earnings and dividends, years ending December 31, 1904 to 1909. Net earnings, 1909, \$6,656,109. Dividends, \$3,790,371. Sinking fund \$692,500. Balance surplus year 1909, \$2,173,237.

Income Account Years Ended December 31.

Income from Leased Works and Investments 1909, \$7,398,698. Other income \$250,537. Total income for 1909, \$7,649,235. Salaries and Traveling Expenses 1909, \$476,077. Taxes and Miscellaneous Expenses 1909, \$517,049. Dividends for 1909, \$3,790,371.

4593 Sinking Funds 1909, \$692,500.
Undivided Profits 1909, \$2,173,237.

General Balance Sheet December 31.

Assets 1909. Investments in gas, electric, street railway, Welsbach and other companies at cost price, \$66,234,939.

Uncompleted construction contracts, \$77,572.

Real Estate, Philadelphia, \$1,008,051.

Cash \$5,041,498.

Accounts and Bills Receivable, \$481,261.

Coupons and Guar. Divs. (accrued, not due) \$816,358.

Store Room Material \$110,880.

Sinking Fund Securities \$962,000.

Total \$74,732,559.

Liabilities 1909.

Capital Stock, \$50,460,800.

Taxes accrued but not due, \$309,500.

Due Co.'s in which we are shareholders \$293,860.

Sundry Creditors \$57,982.

Undivided Profits (see contra) \$23,610,417.

Total, \$74,732,559.

Officers: Thomas Dolan, Pres.; Samuel T. Bodine, V. P. & Gen. Mgr.; Randal Morgan, 2d V. P. & Gen. Counsel; Walton Clark, 3d V. P.; Lewis Lillie, 4th V. P. & Treas.; W. F. Douthirt, Sec. Philadelphia."

Q. Now, Mr. Curran, in this general balance sheet for 1909 are sinking fund securities \$962,000; do you know what is covered by that item?

Objected to on part of complainant as irrelevant, immaterial, wholly foreign to this controversy; it is a matter that cannot in any

way affect the merits of this controversy one way or the other,
4594 a matter which the witness is under no obligation whatever to answer so far as we are concerned.

Mr. BYERS: Tell him not to answer.

Mr. GUERNSEY: Yes sir; I advise him not to answer.

Q. Can you tell me anything about that item?

Complainant interposes the same objection. If we have to figure out every item in the books of the U. G. I. Company, we want to have the court say so first.

A. I will answer by stating that the fund mentioned there has no bearing whatsoever on the Des Moines Gas Company.

The MASTER: You can tell in a general way what they are.

A. I really do not know in detail. I could tell you in a general way. I think that refers to the investment in the Philadelphia Gas Works property; that is not owned by the United Gas Improvement Company, but states the investment the company has made there.

Q. The term says, sinking fund securities; is it your understanding that item represents securities purchased by the United Gas Improvement Company with sinking fund balances?

Complainant interposes the same objection. Of course the only reason for the objection is this: we are criticised for going into immaterial matters. If they are gone into on one side, we necessarily have to go into them and follow them up.

The MASTER: I just wanted to know whether they were entering into depreciation and if any part of it belonged to the Des Moines Gas Company.

Mr. GUERNSEY: That is proper of course, if any part of it went into the Des Moines Gas Company.

4595 Mr. BYERS: I suppose you have no objection to our asking a question that we can ask properly.

Mr. GUERNSEY: I have no objection to any germane question.

A. I believe I answered that had no bearing whatsoever on the Des Moines situation. The Philadelphia Gas Works is owned by the City of Philadelphia. The United Gas Improvement Company leases it, and at the termination of the lease the property is turned over to the city, together with all the extensions and improvements made during the period of the lease. So in order to take care of the investment of the United Gas Improvement Company it is necessary to set up a sinking fund, and the amount that is mentioned in that balance sheet practically covers that transaction.

The MASTER: There is no part of that sinking fund belongs to or is in any way related to the Des Moines Gas Company?

A. Not one dollar.

Q. It is your judgment, is it not, that item represents a depreciation reserve that had been set aside in the operation of the Philadelphia Gas Company and invested in securities?

A. There isn't any depreciation about it, General.

Q. I can't quite understand how it would get in as securities?

A. You might call it depreciation; it is far from being depreciation. The Company some day is going to lose. They are naturally making a profit in the sale of gas and they are setting aside a portion of the profits to take care of the investment that some day they will lose.

Q. Another item, due companies in which we are shareholders \$293,860. In a general way what is that item?

A. I could hardly go any further than what it states there. It is due companies. You find on the other end amounts receivable from companies.

Q. It is the general account kept between the United Gas Improvement Company and these companies you have named in this method of doing business that has been in vogue for ten or twelve years at least?

A. Practically so.

Q. The gas plant at Philadelphia is operated by the United Gas Improvement Company?

Mr. GUERNSEY: I think if we are going into this we ought to object to this as not the best evidence. I think there is a written contract that shows just what the relation of the parties are. Our objection to it is simply on the ground that it is immaterial. We want to make the objection now so that if we shall later go into these immaterial matters, it will be understood we are forced into them.

The MASTER: I do not understand that matters pertaining to the United Gas Improvement Company relating to other companies have anything to do with this. This is competent if it in any way affects the Des Moines Company.

Mr. BYERS: That and one thing further. I do not want to be misunderstood in the record, but I have this thing further in view, and that is, to show the general plan and method of doing business between the U. G. I. and all these companies as far as it applies to the way they do here.

The MASTER: That I understand you have already shown.

Q. Now, Mr. Curran, you have audited the books of the Des Moines Gas Company on numerous occasions?

A. Yes, sir.

Q. And the books of the Sioux City Company?

A. I have.

4597 Q. And the books of the Burlington Company?

A. I have.

Q. You have in your office records from which you could readily tell or furnish to me a list of the salaried officers of these companies, couldn't you?

A. I suppose I could, but I question whether it would be necessary for me to do so or not.

Q. You could do it readily and promptly?

A. I could.

Q. Perhaps you could tell me without referring to any record whether the United Gas Improvement Company has any of its

officers on the pay roll of the Sioux City and Burlington Gas Companies?

A. My recollection is they are the salaried officers.

Q. Do you know who they are?

A. I think they are practically the same as the officers of the Des Moines Gas Company.

Q. And drawing salaries from the Sioux City and Burlington companies?

A. I believe so.

Q. The same list that appears here in Des Moines?

A. Practically the same list.

Q. Do you know when that practice began?

A. No, I can't recall the date now.

Q. I wish you would furnish us, Mr. Curran, if you will, before the trial is over, a statement or list of the officers of the gas company at Sioux City that is controlled by the U. G. I. and Burlington, Harrisburg, Pa., those three, and Omaha, Neb.

Objected to on the part of Complainant as irrelevant, immaterial and incompetent. If we are required to go into this matter, we shall also be brought into the collateral matters which that would involve, if this is to be taken as material evidence, and would have to go into the testimony as to each one of these officers, as to the duties performed and the results attained, and all the other factors that go into the reasonableness of the salaries paid. We do not think this is competent or proper evidence, and we advise the witness not to answer.

Q. You have the list I gave you and understand what I would like to have you furnish?

A. I have the list, yes.

Q. I would like the salaries of the managing officers, not the ordinary employes, but the officers.

Cross-examination.

By N. T. GUERNSEY, Esq.:

Q. Mr. Curran, you were asked at the commencement of this examination to give a list of all of the companies in which the United Gas Improvement Company owned substantially all the stock; now, if I understand you correctly, you gave a list of all the companies in which it owned a mere majority of the stock and did not distinguish between substantially all, and the majority in the first part of the list that you gave here?

A. There may have been some in that; not having the stock record before me, I am unable to state correctly.

Q. Substantially all is a rather indefinite term; I suppose you couldn't give the per cent of stock which the U. G. I. Company owns in any of the companies that you named?

A. No, I would be unable to give that.

Q. So that it would stand somewhere between majority and substantially all?

A. Yes.

Redirect examination.

By Gen. BYERS:

4599 Q. In that list that you gave does the U. G. I. receive from each of those companies in the form of salary, money the same it does here in Des Moines?

A. I cannot recall, General; in a large number, yes.

Q. You said you did not have before you the stock book; that wouldn't help you any if you had it, would it; the stock book don't always show who has the stock?

A. It shows the stock as of record.

Q. But don't show who owns it?

A. I wouldn't be in a position to know other than what the books show.

Q. You don't mean that?

A. It would be beyond my duty to investigate each holding.

The MASTER: You mean the book that contains the list of stock of those several companies?

A. Yes.

Q. You mean U. G. I. list of stock—what you thought you meant in your answer to Mr. Guernsey, that you did not have the stock book before you, I thought you meant the stock book of each of those companies.

A. The same would hold true, General, the stock book of the individual companies or the stock book of the United Gas Improvement Company.

Q. The Des Moines Gas Company for instance, do they have a stock book or register here?

A. No, it is hardly necessary here. As has been testified to, the United Gas Improvement Company hold all the stock. So it wouldn't be necessary to have the stock book.

Q. What you meant was, when you referred to the stock book, was the register of the U. G. I. which would show what stock it owned?

4600 A. Yes.

Q. In all these companies you have named, in addition to receiving the money in the form of salaries through its officers, they also have a running account for materials and fixtures and services of the men in your department, engineers and all that sort of thing?

A. As you will notice on the balance sheet you read, store room supplies, that represents principally stationery and special fittings that the company buy in large quantities. Then the local companies may requisition for supplies, for instance, some manufacturing report, one pad would do for a year; it could cost the company here through the United Gas Improvement Company about 25 cents, whereas if that same stationery was purchased locally it would probably cost ten dollars; in that way there is quite a saving made.

Q. To all the companies?

A. To all the companies: there isn't any profit made in the supplies.

Q. I notice *an* another item of four hundred odd thousand dollars in that balance sheet for 1909, I think for salaries; that don't just mean salaries of the officers at Philadelphia, does it?

Objected to on part of complainant as irrelevant, and immaterial to this controversy; further because it assumes a fact which as a matter of fact is incorrect.

Q. The item referred to is in the income account, for the year 1909, \$476,077; does that item cover and show what the U. G. I. has received from these numerous companies in the way of salaries and expenses of traveling auditors?

Objected to on part of complainant as irrelevant and immaterial to any matter in controversy in this case. I would suggest that you hand that statement to the witness so that he can see 4601 just what that item is you are asking about.

A. I am afraid you are misinterpreting this. You are speaking of it as an income; it is just the reverse. The income account would represent the revenue and operating expenses.

Q. The income account has something to do with what is pouring in, doesn't it?

A. The amount that you refer to there is an expense item, not an income item.

Q. You mean it is what they paid for salaries?

Complainant interposes the same objection last made.

A. Paid out.

Q. Paid out for salaries?

A. Not for salaries alone.

Q. Salaries and traveling expenses?

A. The officers are in the minority in the Philadelphia office. The Philadelphia office is a large organization and the expenses there, you might determine, would represent the operating expenses of the company.

At this time an adjournment was taken until 1:30 P. M.

4602

1:30 P. M., WEDNESDAY, *October 4, 1911.*

G. W. CURRAN continued on direct examination by Hon. H. W. Byers, testified as follows:

Q. I had identified and offered into the record this morning certain pages of the book called Moody's Manual and for the purpose of identification and convenience hereafter I desire to have the pages marked as defendant's exhibit 61. We will have the pages copied and tacked together as Exhibit 61. I think the last question Mr. Curran was to ask you to furnish me certain information with respect to Sioux City, Omaha, Burlington and Harrisburg and with that I will excuse you for the time being.

Cross-examination by N. T. GUERNSEY, Esq.

Q. Your attention was called to the item of salaries and traveling expenses in a part of this book that has been referred to as Exhibit

61. I wish you would state whether this covers the salaries and traveling expenses of all of the employes of the U. G. I. Company directly employed by that company in Philadelphia leaving out the Philadelphia gas works which is run as a separate proposition as I understand?

A. The transactions of the company *are* listed on the exhibit 61 relates solely to the United Gas Improvement Company, have nothing to do with the expenses other than that company. There are some 300 employes in the United Gas Improvement Company proper in the Philadelphia office so that the salaries include salaries of all and what other expenses there may be. In other words it is part of the operating system.

4603 Mr. BYERS: I want to have marked those three journals and the ledger. Journal No. 1 of the Des Moines Gas Company may be marked defendant's exhibit No. 62. Journal No. 2 may be marked defendant's exhibit No. 63. Journal No. 3, marked defendant's exhibit 64 and includes pages from page 1 to 184 inclusive.

Defendant's Exhibit 65 ledger No. 1 of the Des Moines Gas Company March 1, 1906, to February 28, 1908. Defendant's Exhibit No. 66 Ledger No. 2 of Des Moines Gas Company March 1, 1908, to December 31, 1910.

Mr. BYERS: Defendants in this connection offer in evidence defendant's exhibits 62, 63, 64, 65 and 66.

Mr. BRENNAN: The defendants now offer and read in evidence from the statement and brief for the complainants filed in the case of the Capital City Gas Light Company against the city of Des Moines in the circuit court of the United States in and for the southern district of Iowa, central division the following, commencing at the bottom of page 20 thereof.

Mr. GUERNSEY: This is all objected to as incompetent because the case referred to was disposed of and the brief in question was filed by the complainant in that case prior to the organization of this company and was not and could not have been filed by this company and could not bind it in any way in this case.

Mr. BRENNAN: The offer reads as follows:

We recur now to the first inquiry suggested, which relates to the capital upon which the complainant is entitled to a return. Without attempting to particularize to the extent that was necessary upon the oral hearing, we submit a synopsis of the facts as they appear in the showing.

The complainant was organized in 1875. We have laid before the court with absolute frankness the whole history of the
4604 compane. It appears in the testimony of Lewis Lilley and Edward G. Pratt, and especially in the exhibits attached to the affidavits of Mr. Pratt, the manager of the company. Statement 1 Exhibit C, attached to the affidavit of Mr. Pratt, Exhibits in detail the entire property of the gas company, and shows the amount of the investment, beginning January 26, 1878, and continuing to December 31, 1895. It was begun in 1878 because it was not thought

necessary to enlarge the record by covering the previous period. It shows an aggregate investment on the 31st of December, 1894, of \$681,646.04. This exhibit includes the investment of the company in the stock of the Capital City Electric Light Company, amounting to \$39,271, the stock of the Iowa electric and *con*-Construction company, \$252.17 and \$172,096.94, bonds issued in payment for rights acquired under letters patent. While as a matter of business, it became necessary for the gas company to acquire the ownership of the stock of an electric light company, we recognize that there may be difference of opinion with respect to our right to include the stock in our investment upon which interest should be paid by the operation of the gas plant. We defer the consideration of that question to a later period in our argument. The same observation may be made with regard to the small investment in the stock of the Iowa Electric & Construction Company, which is a company ancillary to the gas business. Deducting the amount represented by the stocks of these two companies, there remains an investment of \$642,022.65. With the exception of the \$172,096.94, represented by bonds issued for patent rights, this sum is the aggregate of the construction account *account*; that is to say, the actual
4605 present value of the tangible property of the company employed in its business. It is possible that some criticism will be made of the issuance of these bonds. We have no doubt of the propriety of including them in ascertaining the investment, but in order to put the facts before the court we have considered the case from every standpoint, and the court will find in a subsequent statement of the same exhibit, the inventory of the company's property, excluding the stock in the electric companies and the bonds. This inventory aggregates \$466,532.93. It probably should be remarked that the item real estate \$8,916, represents, not the present value of the real estate, but what was paid for it many years ago, by the company. Otherwise it is an exhibit of the present actual value of the tangible property. It appears from another part of the affidavit of Mr. Pratt that the outstanding capital stock is \$300,000 and the outstanding bonds, \$200,000.

We recapitulate in four tables, which show the investment of the company upon the several hypotheses to which we have called attention.

Mr. BRENNAN: The defendants now offer and read the third table referred to in the statement.

Mr. GUERNSEY: Same objection and the further objection that this testimony is not competent to prove the present actual value of the property now used by the complainant company and we make that objection to the entire offer of this document.

Investment, excluding the stock in electric companies and bonds issued for patent rights \$466,532.93.

Mr. BRENNAN: The defendants also offer in evidence and read into the record the following commencing at page 23 of the statement and brief for the complainant filed in said action above mentioned.

4606 Same objections.

We have first the affidavit and oral testimony of Edward G. Cowdery. Mr. Cowdery has been for twenty years engaged in the manufacture and distribution of gas, and is now the general manager of the Milwaukee Gas Co. Milwaukee is a large city, and is mentioned in every dissertation upon the subject of cheap gas as an instance that gas can be furnished for \$1.00 per thousand. Mr. Cowdery has no connection with or relation to the complainant. His natural tendencies lead him into opposition to the United Gas Improvement Company, the owner of the capital stock of the complainant. He is a recognized authority in the United States upon all questions connected with the construction or operation of gas plants. The courts, therefore, ought to receive what he says as the evidence of one qualified to speak, and having no motive — speak anything save the truth. He came to Des Moines and spent several days in a close and analytical examination of our plant, and among other things he attaches to his affidavit an inventory of our plant as it now exists. This inventory, with the exception of one or two items which he points out in his affidavit, was made independently of any information received from the company, and he declares as follows:

Deponent has been further requested to state what it would cost to reproduce the existing plant now in operation in the city of Des Moines. In his opinion it would cost more to reproduce it than the amount of the investment account as claimed by the Capital City Gas Light Company, for the reason that there are buildings and other appliances serving their full purpose which would cost largely more to reproduce than their present cash value; and he has, therefore, carefully inventoried the said plant, and applying to the plant the prices now prevailing for material and construction, but
 4607 depreciating a portion of the plant by reason of long use, he states to the court that the present cash value of the said plant, including street mains and miscellaneous parts of the system necessary to its use, is \$454,414.35. This amount is properly divisible into three parts as follows:

| | |
|---|--------------|
| Present cash value of works..... | \$226,601.00 |
| Present cash value of mains..... | 153,863.35 |
| Present cash value of miscellaneous construction..... | 73,950.00 |

| | |
|--------------------|---------------------|
| Total | \$454,414.35 |
|--------------------|---------------------|

He attaches an itemized statement of said values hereto, marks, the same Exhibit "C" and makes it a part hereof.

Grand Rapids, Michigan, is another city very often mentioned as an instance of cheap gas. It is a city of 85,000 inhabitants. The company is not in any — connected with the complainant, and its manager, Mr. Harry D. Walbridge, is wholly independent of any influence that can be supposed to emanate from Des Moines or Philadelphia. He did not visit Des Moines, but he examined the inventory attached to the affidavit of Mr. Cowdery and thereupon he says:

Deponent further says that he has examined a blue print of the gas works of the Capital City Gas Light Company, located in the city of Des Moines, Iowa, and has examined the inventory of said gas

plant and gas mains and miscellaneous construction as contained in Exhibit C attached to the affidavit of Edward G. Cowdery. That he has been informed by Edward G. Pratt, the manager of said Capital City Gas Light Company, with respect to mains, and generally with respect to the extent of mains laid under paved streets. That from the information so received he is able to form an opinion regarding

the cost of reproducing the said plant of the Capital City Gas
4608 Light Company, including its works mains and miscellaneous construction; and upon the hypothesis that the information heretofore recited as received by him from the said several sources set out is true, he is of the opinion that it would cost to reproduce the said plant and equipment at the present time not less than \$450,000.

Mr. Walbridge has been engaged in the business fourteen years, is of high repute, and therefore his opinion, or rather his computation, is entitled to very great weight.

Toledo is another city enjoying the advantages of cheap gas, and we have the affidavit of Charles Faben, Jr., the manager of the gas company there. He also is entirely disinterested, neither he nor his company having any relation whatever to the complainant or with the United Gas Improvement Company. After reciting the sources of the information concerning the plant of our company, none of which will be impeached in any particular, he says:

Upon the hypothesis that the information heretofore set out and received by him from the several sources above named is true, it is his opinion that it would cost to reproduce the said plant and equipment at the present time between \$450,000 and \$460,000.

Columbus, Ohio, is also a city of cheap gas, and Mr. Irvin Butterworth is the vice president and general manager of the Columbus Company. Mr. Butterworth is entirely disassociated from any corporation or person having an interest in the issues of this controversy. He examined the plant of the gas works in Des Moines, and the inventory attached to the affidavit of Mr. Cowdery, and having thus become acquainted with our property, and knowing from his own
experience, exactly what it cost to construct such a plant, says:

4609 That from the information so received he is able to form an opinion regarding the cost of reproducing the said plant of the Capital City Gas Light Company, including its works, mains, and miscellaneous construction, and upon the hypothesis that the information heretofore recited as received by him from the said several sources heretofore set out is true, he is of the opinion that it would cost to reproduce the said plant and equipment at the present time not less than \$455,000.

We have also the affidavit of Byron D. Chollar, who has been engaged as a gas engineer and in the construction and operation of gas plants for thirty two years, and is now engineer of the LaCade Gas Light Company. He is likewise without any interest either in the controversy or in the persons or corporations involved in it. He says:

That from the information so received he is able to form an opinion regarding the cost of reproducing the said plant of the Capital City Gas Light Company, including its works, mains and miscellaneous construction; and upon the hypothesis that the informa-

tion so received is true, he is of the opinion that it would cost to reproduce the said plant and equipment at the present time not less than \$460,000.

We present also the affidavit and oral testimony of George H. Harper, the superintendent of the Altoona Gas Company. Mr. Harper has been engaged in the business for 21 years. He is disinterested, and he says:

From these several sources of information he is able to form a substantially accurate opinion with respect to the cost of reproducing at the present time the said plant of the complainant company; and he thereupon says to the court, that upon the hypothesis that the information so received by him from the several sources above named is substantially accurate, it is his opinion that it would cost now to reproduce the said gas works of the complainant company with its mains, its miscellaneous construction and equipment from \$450,000 to \$460,000.

Upon his examination before the court and after a personal inspection of the plant he offered an itemized statement which upon the basis of \$32,500 for land aggregated \$472,770. We present also the affidavit and oral testimony of Captain William Henry White, of New York, probably the most accomplished gas engineer of the United States; A man whose knowledge of the subject is both comprehensive and intimate; a man who has been for many years engaged in doing nothing but installing gas plants and advising the various companies with which he is connected. He is not only not interested in the complainant, nor in the United Gas Improvement Company, but he is an active competitor of the latter and hence occupies a peculiarly independent position. He says

That he has thus familiarized himself with the length and size of the street mains in use by said company, and the portion thereof which lie under paved streets. That the information so received is sufficient to enable him to form an opinion with respect to the cost of reproducing said gas plant, with its mains and miscellaneous construction, at the present time; and thereupon he says to the court that upon the hypothesis that the information thus received by him is substantially accurate, it is his opinion that it would cost at this time to reproduce the said plant and its equipment not less than \$450,000.

After giving the affidavit he came to Des Moines and examined the plant and upon his oral examination submitted a detailed statement showing, with land at \$32,500, a present value of \$474,031.05.

We have presented, further, the testimony of W. A. Steadman, delivered in the former suit between the gas company and the city. Mr. Steadman was at that time manager of the gas works in St. Louis and had been engaged in the business for thirty years. His estimate of the cost of reproduction, exclusive of the land upon which the works are situated was \$404,000. This estimate was on the basis of the plant as it existed in 1891. The additions made since then appear in the exhibits attached to the affidavit of Mr. Pratt. Adding these and allowing \$32,500 for land the aggregate is \$479,749.29. Mr. Steadman was likewise then and is now without any interest in or connection with the controversy.

Thus far our evidence has come from witnesses entirely disconnected with the company. We have, however, the testimony of Walton Clark, now the general superintendent of the United Gas Improvement Company, who has had twenty years' experience in the construction and operation of gas plants, and who has been the supervising engineer of the Des Moines works, who says that it would cost to reproduce the plant at the present time and at the present prices \$440,275; to which, if we add \$32,500 for the real estate the aggregate is \$472,774.

We have also the testimony of Mr. E. G. Pratt, the manager of the Capital City Gas Light Company, whose knowledge of the subject is more intimate than that of any other witness, and who, having had twenty years of actual work in the operation and construction of gas plants, is well qualified to advise the court. Mr. Pratt says that it would cost at the present time to reproduce the plant, allowing \$32,500 for real estate, \$483,756.06.

Mr. BRENNAN: The defendant offers and reads into the evidence from the statement and brief of the complainant in the case 4612 above re- the following commencing at the bottom of page 32 thereof.

Same objections.

We therefore leave this branch of the case, confidently believing that the court will find, first, that the actual investment of the company in physical, tangible property, used for the production and distribution of gas, is \$466,532.93, and that this property is in as good condition at the present time as it is possible to keep it with ordinary repairs; second, that the investment of the company in patent rights is \$172,096.94 represented by bonds issued by the company in 1889; third, that the present value or cost of reproducing the physical property of the company as now used in its business would be not less than \$460,000.

In order that the court may see at a glance our testimony in this regard, we tabulate the conclusions of our several witnesses as to the cost of reproduction, with land estimated at \$32,500.

| | |
|----------------------------|--------------|
| Edward G. Cowdery | \$440,914.35 |
| Harry D. Walbridge | 436,500.00 |
| Charles R. Faben, Jr. | 446,500.00 |
| Irvin Butterworth | 441,500.00 |
| Byron E. Chollar | 446,500.00 |
| George H. Harper | 472,770.00 |
| William Henry White | 474,031.05 |
| W. A. Stedman | 479,749.29 |
| Walton Clark | 472,774.00 |
| E. G. Pratt | 483,756.06 |

4613 ANDREW SANGSTER recalled on the part of the defendant- and examined in chief by Hon. H. W. Byers, testified as follows:

Q. Mr. Sangster, since you were on the stand some days ago I will ask you if you have made up the tabulations that you were

asked at that time to make showing comparative statements of the cost per thousand feet of manufacturing and distributing gas for the present year up to say, the 1st of August 1911, in comparison with the year ending December 31, 1910.

A. I have made up a statement for the eight months to August 31, 1911.

Q. Do you have that statement with you.

A. I have.

Q. You may examine defendants' exhibit No. 67 and state whether that is the tabulation you refer to covering the months you have stated.

A. That is the statement I referred to.

Q. Now you may state whether you prepared a tabulation or statement covering the same period showing additions to plant of the gas plant?

A. I did.

Q. You may examine Exhibit 68 and state whether that is the tabulation you refer to?

A. That is it.

Q. You may state whether or not you have prepared a statement or tabulation showing sales of gas by years ending with February in each year for five years, beginning with the end of February 1906?

A. Yes, I have prepared a statement showing sales, that is 4614 gas account over five years ending February 28, 1911.

Q. It shows each year beginning with the end of February 1906?

A. It does.

Q. You may examine Exhibit No. 59 and state whether that is the statement or tabulation you have just referred to showing the sales for the years mentioned?

A. That is the statement.

Q. Exhibit No. 67 Mr. Sangster entitled Des Moines Gas Company, comparative statement cost per thousand cubic feet of manufacturing and distributing gas eight months to August 31, 1911, and year ending December 31, 1910, you may state whether the computations and figures that appear on that exhibit were taken from the complainant's books, the Des Moines Gas Company's books by you.

A. The figures stated in the first column, that is estimated expense are taken from the company's ledger.

Q. That is true all the way through is it?

A. Yes, sir.

Q. And of course the other figures are your own computations are they?

A. Yes, sir; but I should explain in connection with expense as shown I prepared a memorandum showing where I group certain accounts as appear on the ledger making up one or two of the items in that first column.

Q. Explain those please?

A. Under the heading manufacturing, the item repairs works, \$4,185.96 is made up as follows. Amount as per ledger, \$3,720.98.

There is a separate account in the ledger headed repairs linings amounting to \$464.98. I have added in that item making a total of \$4,185.96. The item repairs mains, amounting to 4615 \$4,407.89, is made up as follows: Amount as per ledger \$3,768.88. I have separate repair accounts shown in the ledger repairs mains authorization 598, \$361.97. Repairs mains authorization 601, \$88.85. Authorization No. 602 repairs mains \$67.85. No. 606 \$81.38. No. 581 \$14.33. No. 576 \$24.63. Total addition \$639.01.

Q. Right at that point let me ask you these items that you read as being taken from authorizations were items not yet carried to the ledger. They are items on the ledger but not carried into the repairs mains account, they are standing separately in the ledger.

COURT: You put them into repairs.

A. I simply added them here into repairs mains. That makes up the total \$4,407.89.

Q. Now is there any other lumping or adding in that first column?

A. Under the head of commercial expense there is an item expense office \$9,006.76.

Q. What about it?

A. The amount as per the ledger is \$8,972.76 to which I have added an item appearing in the account furniture \$34 making up a total of \$9,006.76.

Q. Is there any other added?

A. Under head of new business there is an item gas appliances showing a total credit of \$2,749.58. There is no such account entitled gas appliances in the 1911 ledger and for the purpose of comparison I have grouped what appears to me to be the accounts which were formerly included under the head of gas appliances in the previous years so far as I can judge. These are as follows: Gas ranges, cr-dit balance \$3,720.36. Circulating water heaters 4616 credit \$857.84. Special appliances credit \$916.14. Connecting new ranges debit balance \$1,540.86. Connecting new water heaters debit \$782.09. Connecting new special appliances debit \$754.11. Connecting consumers' appliances credit \$175.78. Company's appliance repairs debit \$276.45. Fixtures credit of \$432.97. Total debits \$3,353.51 and total credits \$6,103.09 making net credit of \$2,749.58, the amount appearing under that first column. Under the same group of accounts new business there is an item house fitting expense with credit \$586.37. I think the same explanation applies there as in the gas company's appliances there is no house fitting account on the 1911 ledger as was previously and I have taken what I thought would be accounts which would compare with that. Now any others?

A. Save the house fitting expense that is made up of house piping credit \$228.28 incandescent burner repairs credit \$396.56 incandescent burner maintenance, debit of \$38.47. Two credits given are \$624.84 and the debit of \$38.47 deducted makes a net credit of \$586.37, the amount appearing in that first column. The last thing uncollectible bills appearing under general expense amount-

ing to \$1,964.40 is made up of two items, amount as per ledger \$1,708.60 to which I have added account uncollectible sundry sales bills, \$255.80, making up the sum of \$1,964.40 appearing under that first column. I think that covers all these items.

COURT: These in red on the third page of the exhibit are to be deducted?

A. The deductions yes. I should explain in a general way that these computations do not include the reate regulation expense charged on the books for the eight months amounting to \$47,131.16, expressly excludes that ite-, and in addition the item appearing as taxes general, \$19,291.87 includes the federal tax for the year 1910, that is applicable to the year 1910, amounting to \$1,287.37 paid in 1911.

COURT: Let me understand now the charge for rate regulation is not included.

A. No, sir.

COURT: The charge, however for salaries is?

A. Yes, the proportion of the \$10,000 for the period is. You will find that under the last item, under general expense. I have made no adjustment whatever of the book figures.

Q. At the bottom of this Exhibit 67 I notice total gas manufacturing during period to August 31, 1911, that is for an eight months' period ending August 31, 1911?

A. That is so.

Mr. BYERS: Defendants offer and read into the records defendant's Exhibit No. 67.

Mr. GUERNSEY: I would rather wait until we have had a chance to examine this to see whether we care to make any objection to it.

Q. Defendant's exhibit No. 68, statement of additions to plant and property, January 1, to August 31, 1911, what do you have to say as to whether that statement was made up from the books of the company?

A. That statement is made up from the books of the company, yes, without adjustment.

Mr. BYERS: Defendants offer in evidence defendant's exhibit No. 68.

Mr. GUERNSEY: I would like to have an opportunity to examine that and make objections if any after examining it. That statement of course does not include additions to what the company calls stable, that has now been included under construction account or plant account.

Q. Defendant's exhibit No. 69 showing gas sales for twelve months to February 28th in each year beginning with the last of February 1906 and ending with February 1907, on down to February 28, 1911, was that statement made up from the books of the company without any changes?

A. That statement was made up from the figures in Mr. Hall's report which were taken from the books details of which will be found under schedule 2 down to December 31, 1910, and as regards

January and February 1911, in the body of the report, I can't give you the page, but the figures will be found there.

Q. There was no tabulation was there anywhere either in Mr. Hall's report or any other report so far as you know of that carried out the sales for these particular dates or years made up in that way beginning with the end of February 1906?

A. Down to February 28, 1909, the figures are just as shown in that report.

Q. But they are not carried on to 1911?

A. No, sir.

Q. Defendant's exhibit 69 does carry them on to February 28, 1911?

A. Exactly.

Mr. BYERS: Defendants offer in evidence defendant's exhibit No. 69.

Mr. GUERNSEY: As to that exhibit also I would rather wait until I have seen the exhibit and have a chance to examine it before making any objections we may desire to make.

Q. Now Mr. Sangster have you examined the books with respect to the amount paid to the several experts in this case?

A. Yes, sir.

Q. And will you state what your tables shows, or what you found?

4619 Objected to as irrelevant and immaterial because the question as to reasonableness of that amount is not one of the issues in this case and the fact that the experts were paid is of course something that is a matter of common knowledge.

Q. Who do you mean to include?

Q. Well take Mr. Baehr for instance.

A. Down to August 31, 1911, the items appearing as W. A. Baehr on account of services rate regulation work amount to \$8,180.

Q. And Mr. Lea?

A. Henry I. Lea, services \$6,796. That is down to August 31, 1911. There have been subsequent payments.

Q. You are giving it down to August 31st?

A. Yes.

Q. You say there have been subsequent payments?

A. In certain cases.

Q. Now Mr. Randolph?

A. W. W. Randolph account services rendered in case of Des Moines Gas Company vs. City of Des Moines, \$5,000.

Q. His was \$5,000 even?

A. Yes, sir.

Q. Mr. HAGENAH: W. J. Hagenah for services auditing accounts, report and expenses two items to July 1, and for the month of July together amount to \$1,546.00.

Q. And what was the total that you found charged up to rate expenses up to August 31st?

A. \$47,131.60. That is included in that item.

Q. In a general way, what was the rest made up of aside from these four experts?

A. Accounts incurred locally and charges made by the United Gas Improvement Company.

4620 Q. How much was the amount credited to the United Gas Improvement company in this case as you remember?

A. I could not say off hand, but I could easily get the figure. You will find it under rate regulation account, the separate debits to the United Gas Improvement Company. There are also a few charges under the head of accounts payable.

Q. What are those?

A. They don't amount to much. I don't remember and haven't the figures beside me here, but they are charges for photographs, prints and such like.

Q. You can put that in with the item you were going to get for me showing the amount that the U. G. I. has been credited with in this case?

Mr. BYERS: Exhibit No. 70 is presented as a substitute for the memoranda that you furnished to me in lead pencil and which was furnished to Mr. Haines or somebody to make up a copy and has been misplaced. I wish you would look over Exhibit No. 70 and state whether that is a copy of that memorandum?

A. Yes, as far as I can make out that is.

Mr. BYERS: Defendant at this time offers in evidence to be considered in connection with defendant's Exhibit No. 59 defendant's exhibit No. 70.

Complainant objects to defendant's exhibit No. 70 simply on the ground it is irrelevant and immaterial to any matter in issue in this case.

Cross-examination by N. T. GUERNSEY, Esq.

Q. You gave the amount paid to Mr. Bawhr. Did that purport to be for services or services and expenses?

4621 A. I have not looked up the vouchers, it may be for both.

Q. You simply took the figures off the ledger.

A. Off the book which is called accounts payable book.

Q. Then you don't know at what rate Mr. Baehr charged for his services?

A. I do not, no sir.

Q. And was there anything about the account to indicate to you that it was unreasonable or improper in any way?

A. None whatever.

Q. The account which you found had been paid to Mr. Lea you obtained in the same way did you?

A. Yes, sir.

Q. So that you don't know what that includes?

A. No, sir; I can't say how much if any of the total covers expense.

Q. Well all you can say is that the books show that there was an

account rendered of an amount payable to Mr. Lea for that account.

A. For that amount yes.

Q. And what it was for the books that you examined did not show?

A. The books did not no, but I examined one or two of the vouchers.

Q. Whose vouchers, you said you did not examine the Baehr vouchers?

A. Well I meant all of the vouchers.

Q. You examined one or two of them?

A. Yes, over each.

Q. That is the extent of your information as to what was covered by the account?

A. Yes, sir.

Q. Then as to Mr. Lea's account you know nothing that
4622 would suggest any impropriety in it or anything irregular or extraordinary in it, is that right?

A. Yes, that is right.

Q. The same thing is true as to Mr. Randolph's account is it not?

A. Same is true.

Q. The same thing is true as to Mr. Hagenah's account?

A. Yes, sir.

Q. And the balance of this aggregate that you said went into this rate regulation expense was made up of a small amount of local accounts and credits to the U. G. I. Company?

A. I didn't say small amount.

Q. What was the amount of the local accounts, I infer from what you said or the questions that it was a small amount?

A. No, I said accounts incurred locally, for instance the charge I think somewhere about \$800 for printing the booklet or pamphlet showing the correspondence between the manager and Mr. MacVicar.

Mr. BRENNAN: Defendant's exhibit 44, that is the pamphlet you are talking about.

Mr. GUERNSEY: The one that had Mr. Haines' picture in?

A. I think that is the one, includes charges of that nature.

Q. What other charges were there of that nature?

A. Accounts rendered by the Hotel Chamberlain I think.

Q. That is the expense of witnesses and people that had been here aiding in connection with this hearing.

A. Yes, sir.

COURT: That is the book you refer to, Exhibit 44?

A. That is it, yes.

Q. Did the local accounts run to a large amount?

4623 A. I could not say as to that Mr. Guernsey.

Q. You have no idea as to how much they run to?

A. No, I didn't make any jotting as to that.

Q. Did you find in this whole system this whole amount of \$46,000 or \$47,000 that you have referred to any item that seemed to you to be an improper item?

A. The only analysis I made of that account was as to the amounts paid these several experts.

Q. In order to do that you had to go through the account and in order to say it was rate regulation you had to find out what the items were for didn't you?

A. They were all under the head of rate regulation.

Q. Well didn't you find out what the items were for?

A. Which items do you refer to?

Q. Items going to make up the aggregate of the 46 or 47 thousand dollars, which was it?

A. \$47,000.

Q. \$47,431.16. Now you found out in examining this account what the items were that made up that \$47,131.16 didn't you.

A. No, sir; I examined that account for the sole purpose of finding out what was paid to these several experts. I noticed other items in passing of course, but I didn't make any note of them.

Q. Well adopting the phraseology that we have heard here so often, did you find anything that indicated any impropriety in any item of this kind?

A. No, sir; I did not.

Q. Now then this account which amounts to \$47,131.16 is not brought down to date is it?

A. Not to this date. It is the amount standing as a debit 4624 of that account August 31, 1911.

Q. It didn't include anything on account of attorneys' fees for instance or counsel fees, things of that kind does it?

A. Yes, it does.

Q. How much?

A. I remember one item of \$1500.

Q. That is all it includes on that account?

A. That is the only one I know of, I can't say.

Q. So that this amount is not and cannot be accepted as anything like the aggregate expense of this suit to the Des Moines Gas Company can it?

A. Oh no.

Q. But on the other hand it is obvious from an examination of this account that the expenses will run very much higher than that because on its face the account shows it does not include all the expenses, that is true isn't it?

A. Yes, it does not show all.

Q. So you went far enough to be satisfied that the actual expenses of the company will be very much more than this amount that you have stated.

A. Well I have just answered I say that it will be.

Q. So that somewhere in these operating expenses here, in the expense of transacting this business, there is going to be an amount that is very much in excess of \$47,000 that we have got to take care of that we have not taken care of yet in any statement you have prepared or any part of it?

A. We show in no part of—

Q. I didn't ask you about any part of it, I asked you whether in this item of expense incomplete and with many items not covered at

all running over \$47,131.16 that must be taken care of some-
4625 time and somewhere in the expense of doing this business.
That is a fact isn't it?

A. It does not form part of the ordinary expenses, but has to be taken care of certainly.

MR. GUERNSEY: Now with reference to these exhibits I would like to defer cross examination until tomorrow morning, I have not had opportunity to look at them.

Redirect examination by Hon. H. W. BYERS:

Q. Mr. Guernsey asked you if you found any impropriety in any of these charges. You found it rather a rich field didn't you?

Objected to as argumentative and calling for a conclusion on that account.

MR. BYERS: Well I don't care much about it. But in the meantime between now and morning, Mr. Guernsey asked you about this account, hotel bills, etc., and I wish you would prepare a statement of the account so you could have it here in the morning.

A. That means full details of this account?

MR. BYERS: Full details of the \$47,000 account and run it up to this date. That will be all now.

Witness excused.

4626 JAMES R. HANNA being recalled for further cross examination by Hon. GEORGE H. CARR, testified as follows:

Q. Have you those documents that I called for the other day?

A. Insofar as I found them yes.

Q. Just state what you have?

A. There were two different lines of papers you asked me for. one was the data I had at the time of the passage of the ordinance in the council and I have that here so far as it was preserved.

Q. You have handed to the reporter and had identified as complainant's exhibit 71 the bundle of papers to which you just referred?

A. Yes, sir. The second thing you asked me for was a letter of my own asking for a report from Mr. Marks and Mr. Marks' reply thereto. I found my letter of February 11, in which there is a paragraph or some sentence in paragraph referring to such a report.

Q. Hand it to the reporter and have it identified please.

A. I didn't discover in my papers or on file with the city clerk that report if such report was actually made in writing. It had already been made verbally and you seemed to have an idea that I had such a written report, and I thought perhaps I had but I don't find that I have.

Q. The paper the reporter has marked Exhibit No. 72 is the letter written by you to Prof. Marks to which you have just referred.

A. Yes, sir.

Q. I notice Mr. Hanna in this letter or copy of letter which was

4627 written by you to Prof. William D. Marks Park Row Building New York City under date February 11, 1911, the following "I suppose you have mailed me a statement advising the proper action as to regulation of rates in our gas situation but for some reason it has miscarried and I have not received it. I very much want this statement from you as a basis for our proposed action". Now didn't you get a response from Prof. Marks to this letter?

A. I can't recall, I suppose perhaps I may have but I can't recall that I did and in looking over my files I do not find any letter immediately following this in response apparently to these questions at all or find a letter in the files of the city clerk's office where I thought I might possibly have filed it, but I do not find it there.

Q. Well would you say that you received such a letter but that you can't locate it, or do you say you don't know whether you received it or not?

A. I will have to say I don't know whether I received it or not. I may have received it and I may not, I could not tell you positively whether I did or not.

Q. I called your attention the other day to an article published in the Register and Leader under the date of February 21, 1911, which, as you will observe, is a few days following the letter which you wrote to Prof. Marks.

A. Yes, sir.

Q. In this published article I find the following in quotations, the article beginning with this quotation: "In fixing 90 cents per thousand for Des Moines gas you appear to me to have dealt liberally with the gas company not following the general downward trend of gas prices in an extreme or inconsiderate manner." Then follows "The foregoing is an extract from a letter from 4628 Prof. William D. Marks of New York City received by Mayor James R. Hanna, yesterday afternoon." Do you know, or can you account for such an article as that except upon the basis that you received such a letter and that an extract was taken from it by the reporter for the Register and Leader?

A. No, sir; I suppose there must have been such a letter.

Q. It also contains the following: "Prof. Marks further says in his letter 'I have never had an opportunity to appraise the Des Moines Gas works or to audit its books. Whatever may be my opinion as to the proper price of 18 candle power gas, is based only on general knowledge of similar cases and therefore is necessarily not specific or based on exact knowledge of your locality.'" And in another paragraph the further quotation "Four or five cities in Massachusetts averaging about the same population, 100,000, supplied by your gas company, have voluntarily fixed an average price of about 91 cents actual receipts per thousand. Lowell, Massachusetts has announced its intention of fixing the price of 16 candle power gas at seventy five cents. Minneapolis has gas at 85 cents to citizens and a special rate of 65 cents for city use." That is the end of the quotation. Then the article concludes as follows: "Prof. Marks states in his opinion the actual cost of gas in Des Moines

should be between 82 and 89 1/2 cents including profit or dividend on liberal investment at 7-1/2 per cent. Can you account for such article as that except upon the basis that you received such a letter and the reporter saw the letter or it was shown to the reporter by you and these quotations taken from it?

A. I could give you a very plausible account of another way that might have been I suppose, but I do not have much doubt
4629 there was such a letter that said about that thing.

Q. Aren't you satisfied now upon reflection that there was such a letter sent you by Prof. Marks?

A. I have never doubted that there may have been such a letter. When I was on the stand the other day I believed I had such a letter, but I found I did not have it.

Q. You say you never doubted there may have been such a letter. Isn't it your recollection that Prof. Marks in response to this letter which you have produced and which you mailed to him at New York, did from New York write you a letter covering this subject?

A. I could not answer you positively yes to that for this reason that this letter I expected to get was simply the written statement of the report which he had verbally given before he left the city and in trying to call back to memory I am not certain when I am giving the thought of that verbal report and when I should be giving the same thought from that letter if there was such a letter. I suppose there was such a letter but don't know positively.

Q. I call your attention also to an article published on the same date, that is February 21, 1911, in the Tribune as follows: "Prof. William D. Marks of New York City retained by the city as its adviser in the controversy over the 90 cent gas ordinance has sent his report to Mayor James R. Hanna. Accompanying the report was a bill for \$471.46, of this amount \$350 is for professional services and opinions and the remaining \$121.46 being for traveling expenses. Prof. Marks was in Des Moines seven days, charging for his services at the rate of \$50 per day." Now comes a quotation "I have not had an opportunity to appraise the Des Moines

Gas works or to audit its books states Prof. Marks in his
4630 report, whatever may be my opinion as to the proper price of 18 candle power gas is based only on general knowledge of similar cases and therefore is necessarily not specific or based upon exact knowledge of your locality. I want to call your attention as we go along to the fact that the language used is exactly the same as that quoted in the other article in the Register and Leader. Then follows in this article "Prof. Marks states he believes Mayor Hanna has dealt liberally with the gas company in fixing a rate at 90 cents and has not followed the general downward trend in gas prices in an extreme or inconsiderate manner." In connection with that I call your attention to Exhibit No. 73 which is a copy of a bill presented by Mr. Marks certified to by the city clerk which contains the following: "For professional service and opinion in the matter of a fair and reasonable price for gas" then follows "February 1, 2, 3, 4, 5, 6, seven days at \$50 per day \$350, traveling expenses" then follows an itemized statement and then the total

\$471.46, evidently the bill referred to in the article from which I have read. Now I ask you if that does not satisfy you that such a letter was written to you by Prof. Marks?

A. No more than I have already been satisfied. This is under date *date* of February 9. Just a few days before February 9, he gave us this verbal opinion to which I have referred. That might of course refer to that or it might refer to this written opinion which was the same thing only that the favorable action had been taken.

Q. He uses the word opinion there in the plural doesn't he, opinions?

4631 A. That is the way it is here, yes.

Q. Take it all in all are you not willing to state that it is your recollection after thinking the matter over that Prof. Marks did in February between the date of your letter to him namely, February 11, and the time that this article was published namely February 21, wrote you from New York a letter and report upon this subject?

A. I would say at the best that it is my impression that I received such a letter, I could not say honestly that it is my recollection that I did.

Q. You have said that you could not find such a letter?

A. Yes, sir.

Q. What search have you made for the letter?

A. Well I keep a file, have a file of these letters and other matters in connection with the gas negotiations in my own desk and then my secretary has a file of certain other communications with reference to the gas and then also I file certain papers that seemed pertinent in the office of the city clerk so as to have them in a public record and I examined these three files to see whether I had this report and I was unable to find it in any one of these places.

Q. I assume you don't know of any other place where you think the letter might be found than those you have named?

A. The only other place that I could think of is that sometimes the legal department and myself would look over papers together and it might be possible that if I had received such a letter I left it at their office, and while speaking here this occurred to my mind that the reporter might have carried it away promising to return it and never did return it.

Q. That would satisfy you there was such a letter if that
4632 happened?

A. If he returned it yes.

Q. Well if he carried it away?

A. Yes.

Q. If you received a letter from Prof. Marks you of course read it carefully?

A. Yes, sir.

Q. Don't you remember under date of February 27, 1911, writing a communication to the members of the city council transmitting this report or letter? To refresh your recollection let me put the question in this form: Do you not remember under date of

February 27, 1911, transmitting to the members of the city council the communication report or letter whatever you please to call it that you received from Prof. Marks in a communication which read as follows: "Des Moines, Iowa, February 27, 1911. Members of City Council, city. Gentlemen: I am submitting herewith Prof. Marks' report. It will be noticed that this report was not made until February 17 and that it did not get to me until about three or four days later. I had already submitted to the gas company the proposition suggested in our formal conference at the Chamberlain with Prof. Marks and had been refused, the company coming back with a proposition accepting all our concessions and offering a 95 cent rate in return. Our attorneys have also found it impossible under the Des Moines plan to institute mandamus proceedings in our state courts to compel the company to accept any rate we might propose hence the passing of a new ordinance had to be abandoned for all these reasons it will be noted Prof. Marks makes his report in defense of the ordinance already passed. The city attorneys say also that our proposed compromise having been in writing can
4633 just as well be introduced in evidence as the ordinance itself could so we stand a double chance of sustaining the rate already made or if not then sustaining the rate proposed in our compromise ordinance. I had asked Prof. Marks some questions on the street railway question and the paragraph referring to power house was in response to that request. Respectfully, James R. Hanna, Mayor."

A. Yes, I recollect that.

Q. You recall writing that letter do you?

A. Yes.

Q. Now you will note that this letter of yours to the city council transmits or submits with it Prof. Marks' report and this was under date of February 27th after you received this letter and his report under date of February 17th, I think, it is stated in here it will be noted that this report was not made until February 17th. Now doesn't that confirm the impression you already have that you had that report from Prof. Marks?

A. Yes, sir.

Q. And that it was written to you from New York under date February 17th?

A. Yes, sir.

Q. You now recall having received it do you not?

A. I recall that I have such a report yes, now from this letter.

Q. Now I will ask you again upon receipt of that report and before you transmitted it to the council some ten days later you undoubtedly read it carefully and became perfectly familiar with its contents did you not?

A. Well I undoubtedly read it carefully, but it was the same thing that had already been given to me in a verbal report so there was nothing new in it.

4634 Q. Now I will call your attention to the paper which the reporter has marked complainant's Exhibit No. 74 and will ask you to read that over carefully and then state if you will whether

that is not a copy and a correct copy of the letter to which reference has been made.

A. Yes, sir.

Q. That is a correct copy of the letter?

A. That is about it.

Judge CARR: At this time the complainant offers in evidence complainant's Exhibit No. 74 which reads as follows: New York, N. Y. February 17, 1911. Hon. James R. Hanna, Mayor of Des Moines, Iowa. My dear Mr. Hanna: Referring to your esteemed favor of 11th current which has followed me to Westport, I would say that as I have had no opportunity to appraise the Des Moines Gas works or to audit their books, whatever might be my opinion as to a proper price of 18 C. P. gas is based only on general knowledge of similar cases and therefore is necessarily not specific or based on exact knowledge of your locality. In fixing 90 cents per M. for Des Moines gas you appear to me to have dealt liberally with your gas company, not following the general downward trend of gas prices in an extreme or inconsiderate manner. Four or five cities in Massachusetts averaging about the same population, 100,000, supplied by your gas company have voluntarily fixed an average price of about 91 cents actual receipts per M. Lowell, Massachusetts has announced its intention of fixing the price of 16 C. P. gas at 75 cents. Minneapolis has gas at 85 cents to citizens and a special rate of 65 cents for city use. Speaking generally I should estimate the probable cost of gas in Des Moines as follows: Cost of gas 18 C. P. at consumer's meter 45 to \$0.50 royalty .02. 4635 0.52 investment per M. at $7\frac{1}{2}$ per cent 30 cents or \$5.00 per M. sold at $7\frac{1}{2}$ per cent $37\frac{1}{2}$. Fair and liberal price $0.89\frac{1}{2}$ leaving margin to come and go on of from $7\frac{1}{2}$ to $12\frac{1}{2}$ cents per M. sales. All of this, however, unless acceded to by the gas company requires verification by means of the audit of books and appraisement of works to have any value except as you may value my experience and fairness of judgment. Regarding the street railway power house I would say that I found about 4,500 horse power capacity there as I guessed so all of my rough figures suggested to you appear to be fair estimates. I must, however, add that in matters involving such large investments as these do and affecting the welfare of so great a community as Des Moines any opinion by any person however experienced and trustworthy are only for general guides and not for final conclusions, such opinions are only suggestions and not conclusive and must not be accepted as final without verification. With kindest regards to all, most truly yours, William D. Marks.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

OCTOBER 5, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of Defendants resumed as follows:

Mayor JAMES R. HANNA, continuing his cross examination, examined by Judge Geo. T. Carr, testified:

Judge CARR: From Complainant's Exhibit 71, the complainant now offers and reads in evidence all except the two printed ordinances contained in the bundle of correspondence, the papers offered being as follows:

A letter addressed to Honorable James R. Hanna, signed by A. D. Meeds, of Minneapolis, Minnesota, dated January 21, 1910, which letter is as follows:

"Office of A. D. Meeds, Inspector of Gas, City of Minneapolis, Minnesota.

JANUARY 20, 1910.

Honorable James R. Hanna, Mayor, Des Moines, Iowa.

DEAR SIR: In answer to your letter of January 18th, I would say that the Gas Company here makes a mixture of carburetted water gas and coal gas, usually the proportion is about 2/3 water gas and 1/3 coal gas, I understand.

You are right about the water gas, as it is practically impossible to make a water gas of high heating value and at the same time of low candle power. In order to get the heat units up they have to add oil to enrich it, and this will then bring up the candle power. Water gas alone has a low heating power and also a low candle power. Coal gas alone has a much higher heating value

4637 and also a low candle power.

When the new ordinance was made it was considered advisable to establish for the candle power as well as the heating value, because in this way we knew we could control to a certain extent the kind of gas made. We have had more or less complaint on account of the quality of the gas, due largely, I think, to the low Candle Power.

Any further information required I will be glad to furnish.

Very truly yours,

A. D. MEEDS,
Inspector of Gas."

A letter written by James R. Hanna to Gas Inspector or Mayor of Ft. Wayne, Ind., under date of October 27, 1910, said letter containing answers to questions propounded by Mayor Hanna and written in the letter itself, which answers are included in the offer, said letter and answers reading as follows:

"Des Moines Department of Public Affairs, James R. Hanna, Mayor,
Superintendent.

OCT. 27, 1910.

Gas Inspector or Mayor, Ft. Wayne, Ind.

DEAR SIR: Will you not kindly send me the ordinance or rules which set forth the requirements in your city regarding gas, as follows:

1. As to candle power of gas. 18.
2. As to the heat units. 550.
3. As to the pressure. Not less 2½ inches Water Pres.
4. As to the impurities. —.
5. What variations from the standards are allowed? —.
6. What is the price of gas to consumers? 90 cents 1st 4638 5 yrs. & 85 2nd 5 yrs. 85¢ during first 5 yrs. of gas consumption—2,000,000 per mo. Minimum of 50 cent per mo. including meter.
7. What is the price to the city? —.
8. What is the number of consumers per mile of main? —.
9. What is the total number of consumers? —.
10. What special advantages or disadvantages has your city for the manufacturing of gas, such as the price of coal, crude oil, etc.? We have no special advantages the nearest coal fields being about 200 miles away. No crude oil well near.

The information which I am seeking is very important to us in Des Moines just now and I shall be greatly obliged to you if you can send it to me.

Very truly yours,

JAS. R. HANNA, Mayor.

For further information I would respectfully refer you to S. E. Mulholland, President of the Indiana Lighting Co., Fort Wayne, Ind."

A letter to the Gas Inspector or Mayor of Duluth, under date October 27, 1910, signed by James R. Hanna, said letter containing answers to questions pronounced by Mayor Hanna and written in the letter itself, which answers are included in the offer, said letter and answers reading as follows:

OCT. 27, 1910.

"Gas Inspector or Mayor, Duluth, Minn.

DEAR SIR: Will you kindly send me the ordinance or rules which set forth the requirements in your city regarding gas, as follows:

1. As to candle power of gas. 16.
2. As to the heat units. 600.
3. As to the pressure. Whatever is required by the city.
4. As to the impurities. Are extracted by the Company
5. What variations from the standards are allowed? Must never fall below 550 B. T. U.
6. What is the price of gas to consumers? 75 cents net.

7. What is the price to the city? If city's consumption meant it is the same price.

8. What is the number of consumers per mile of main? 703.

9. What is the total number of consumers? 6325.

10. What special advantages or disadvantages has your city for the manufacturing of gas, such as the price of coal, crude oil, etc? It has none.

The information which I am seeking is very important to us in Des Moines just now and I shall be greatly obliged for it.

Very truly yours,

JAMES R. HANNA, *Mayor*.

Answered by

L. W. CASE, *Manager*.

The City of Duluth purchases its gas from the Zenith Furnace Co. at 40¢ per 1000 feet at the consumers' meters. This is estimated to be the actual cost to the City in manufacturing the gas itself."

A letter to the Gas Inspector or Mayor of Kansas City, Mo., under date of October 27, 1910, signed by James R. Hanna, Mayor, said letter containing answers to questions propounded by Mayor Hanna and written in the letter itself, which answers are included in the offer, said letter and answers reading as follows:

4640

OCT. 27, 1910.

"Gas Inspector or Mayor, Kansas City, Mo.

DEAR SIR: Will you kindly send me the ordinance or rules which set forth the requirements in your city regarding gas, as follows?

1. As to candle power of gas. Natural gas as it comes from the earth about 950 B. T.

2. As to the heat units. Units per cu. foot.

3. As to the pressure. Must maintain not less than 5 inches and if over 13 inches water pressure—regulators must be installed.

4. As to impurities. Must be natural gas as it comes from the earth.

5. What variations from the standards are allowed. —.

6. What is the price of gas to consumers? 25¢ per M cu. feet.

7. What is the price to the city? 25¢ per M cu. feet for Heating Purposes and free for lighting public buildings.

8. What is the number of consumers per mile of main? Varies greatly.

9. What is the total number of consumers? Approximately 50,000.

10. What special advantages or disadvantages has your city for the manufacturing of gas, such as the price of coal, crude oil, etc.? Natural Gas from the Kansas fields.

The information which I am seeking is very important to us in Des Moines just now and I shall be greatly obliged to you if you can send it to me.

Very truly yours,

JAS. R. HANNA, *Mayor*."

A letter written by James R. Hanna to Gas Inspector or Mayor of Omaha, Nebraska, under date of October 27, 1910, said letter containing answers to questions propounded by Mayor Hanna written in the letter itself, which answers are included in the offer, said letter and answers reading as follows:

4641

Oct. 27, 1910.

"Gas Inspector or Mayor, Omaha, Nebr.

DEAR SIR: Will you not kindly send me the ordinance or rules which set forth the requirements in your city regarding gas, as follows?

1. As to candle power of gas. 23 at works. 21.2 at City Hall.
2. As to the heat units. 600 B. T. U. net.
3. As to the pressure. Between 2 and 4½ inches.
4. As to the impurities. Ammonia, H_2 S & G. See report pages 16 & 22.
5. What variations from the standards are allowed. —.
6. What is the price of gas to consumers? \$1.15 per 1,000 cu. ft.
7. What is the price to the city? \$1.00 per 1,000 cu. ft.
8. What is the number of consumers per mile of main? —.
9. What is the total number of consumers? 22,000.
10. What special advantages or disadvantages has your city for the manufacturing of gas, such as the price of coal, crude oil, etc.? None.

The information which I am seeking is very important to us in Des Moines just now and I shall be greatly obliged to you if you can send it to me.

Very truly yours,

JAMES R. HANNA, *Mayor.*"

A letter on the letterhead of Thomas Dies, Commissioner of Public Utilities, Grounds and Buildings, Memphis, Tenn., under date blank, signed by J. P. Monaghan, Inspector, which letter contains questions and answers as follows:

4642

"MEMPHIS, TENN., —, 19—.

1. As to candle power of gas. 20½ Candle Power.
2. As to heat units. Don't test for heat.
3. As to pressure. 4 Inches Day.
4. As to the impurities. None.
5. What variations from the standards are allowed. 2 per cent.
6. What is the price of gas to consumers? \$1.00 per 1,000 cubic feet.
7. What is the price to the city? Same.
8. What is the number of consumers per mile of main? Don't know.
9. What is the total number of consumers? 14 or 15,000.
10. What special advantages or disadvantages has your city for the manufacturing of gas, such as the price of coal, crude oil, etc.? Answer. The facilities for delivering petroleum are excellent. It is transported from Beaumont, Texas by water to New Orleans, La., and

from that city to Memphis it is towed up the Mississippi river, then up the Wolf River, which empties into the Mississippi river at Memphis alongside of the Gas Works. Is then piped in to the works. The coke is delivered at the gas works, there being a railroad switch track into the yards.

Resp'y.,

J. P. MONAGHAN,
Gas Inspector."

A letter addressed to the Hon. H. H. Edgerton, Mayor, City of Rochester, Rochester, N. Y., signed by Jos. E. Putnam, Assistant Engineer, which letter reads as follows:

"ROCHESTER, N. Y., November 1st, 1910.

Hon. H. H. Edgerton, Mayor, City of Rochester, Rochester, N. Y.

4643 DEAR SIR: I beg to reply to the questions of Mayor Hanna, relative to the price of gas in the City of Rochester, as follows:

The candle power in Rochester as fixed by the New York State Law is 18 candle power for mixed, coal, and water gas. There are no specifications for heating value, but our gas averages somewhat over 600 B. T. U.'s gross. The pressure is not less than 1½ in. of water.

The maximum impurities allowed in 100 cu. ft. are not more than 5 grains of ammonia, 20 grains of sulphur, and only a trace of sulphuretted hydrogen.

The price of gas to consumers is 95¢ per 1,000 cu. ft., if paid before the 15th of each month; \$1.05 if paid after the 15th. The price to the City is the same, except that for the small number of street lamps—a total of only 112,—which are open flame burners—we pay 8¢ per night on a lighting schedule of about 4,000 hours per year.

I am unable to ascertain the number of consumers per mile of main. The total number of consumers is about 50,000.

The special advantages which Rochester has in the manufacture of gas are—Anthracite coal is \$3.95 per ton; gas coal \$3.00 per ton; oil 2.8¢ per gallon, and all within 120 miles of coal and oil fields.

Very respectfully,

JOS. E. PUTNAM,
Assistant Engineer."

A letter written by James R. Hanna to Gas Inspector or Mayor of Syracuse, N. Y., under date of October 27, 1910, said letter containing answers to questions propounded by Mayor Hanna and written in the letter itself, which answers are included in the offer, said letter and answers reading as follows:

4644

"Oct. 27, 1910.

Gas Inspector or Mayor, Syracuse, N. Y.

DEAR SIR: Will you kindly send me the ordinance or rules which set forth the requirements in your city regarding gas, as follows:

1. As to candle power of gas. For coal gas 16. Coal & Water Gas 18. Carburetted water gas 20. Coal & Water gas at present furnished.

2. As to heat units. No requirements.

3. As to the pressure. Min. $1\frac{1}{2}$ ". Max. $3\frac{3}{4}$ ". One inch allowed to max. for every 100 ft. elevation above works.

4. As to the impurities. Must be free from sulphuretted hydrogen & not more than 10 grain-Ammonia nor 20-grain Sulphur to 100 cu. ft.

5. What variations from the standards are allowed? Penalty for low candle power enforced only on average of 3 tests not less than 24 hours apart.

6. What is the price of gas to consumers? 95 cents per M.

7. What is the price to the city? 95¢ per M.

8. What is the number of consumers per mile of main. 160.

9. What is the total number of consumers? 28,000.

10. What special advantages or disadvantages has your city for the manufacturing of gas, such as the price of coal, crude oil, etc. Boiler fuel \$2.80 pr. ton.

Gas coal 3.50 " "

The information which I am seeking is very important to us in Des Moines just now and I shall be greatly obliged to you if you can send it to me.

Very truly yours,

JAS. P. HANNA, *Mayor.*

Mr. Blakeslee, please answer.

F.

H. J. BLAKESLEE,
Sup't Bureau Gas & Elec."

A letter To his Honor the Mayor of Des Moines, Iowa, under date of November 4, 1910, by Emil Seidel, Mayor of Milwaukee, as follows:

4645

"MILWAUKEE, Nov. 4, 1910.

To His Honor the Mayor, Des Moines, Ia.

DEAR SIR: Enclosed is a communication which contains the information you inquired for in yours' of recent date.

Very truly yours,

EMIL SEIDEL, *Mayor."*

A letter under date of November 4, 1910 to Emil Seidel, Mayor of Milwaukee, bearing no signature, which letter is as follows:

"NOVEMBER 4, 1910.

Hon. Emil Seidel, Mayor, City of Milwaukee, Wisconsin.

DEAR SIR: In compliance with the request of Mayor Hanna of Des Moines, Iowa, I beg to submit the following information:

First. Candle Power of Gas:

The Railroad Commission of this state has ruled that candle power

is of minor consideration and there is therefore no legal standard for candle power in the state at this time. The Milwaukee Gas Light Company is, however, furnishing gas of approximately 17 C. P.

Second. Heating Value:

The Commission's standard of heating value is as follows:

"The Company furnishing gas which, within a one mile radius from the distribution center, gives a monthly average total heating value of not less than 600 B. T. U.'s with a minimum which shall never fall below 550 B. T. U.'s may be considered as giving adequate service as far as the heating value of the gas is concerned."

For many years prior to the advent of the Railroad Commission this company has furnished a gas of from 630 to 650 B. T. U.'s. Since the inauguration of the Railroad Commission's standard we have fixed upon 640 B. T. U.'s as our standard, and the average heating value of the gas delivered to the City will approximate that figure.

Third. Pressure:

The Commission's rule in regard to pressure is as follows:

"Gas pressure as measured at meter inlets shall never be less than 1½ inches nor more than 6 inches water pressure; and the daily variation of pressure at the inlet of any one meter on the system shall never be greater than 100 per cent of the minimum pressure on such meter."

Fourth and Fifth. Impurities:

The Commission's ruling as to impurities and variations allowed are as follows:

"In no case shall the gas contain more than 30 grains of sulphur per hundred cubic feet, and not more than a trace of sulphur as sulphuretted hydrogen."

Sixth and Seventh. Prices of Gas:

The price at which gas is being sold by the Milwaukee Gas Light Company to both the city and private consumers is as follows:

| | | | | |
|---------------------|-----|-----|----------|---------|
| First 10,000 cu. ft | 80¢ | per | thousand | cu. ft. |
| Next 10,000 " " | 70¢ | " | " | " " |
| Over 20,000 " " | 60¢ | " | " | " " |

For all gas used during any one month through any one meter, Gas is billed at a price of 10¢ higher than the above given prices with a discount of 10¢ per thousand for prompt payment of bills.

Eighth and Ninth. The number of consumers per mile of main is approximately 170. Our total number of consumers is approximately 72,000.

Tenth. There are no special advantages or disadvantages in supplying gas in Milwaukee over other cities other than that accruing to the Company through its ability to obtain coal by boat rather than by cars.

4648½

| Cities. | Candle power. | Heat units. |
|-----------------------|---|------------------------------------|
| Syracuse, N. Y..... | Coal Gas..... 16 Coal and water.... 18 Carbureted " 20 | No requirements..... |
| New York City..... | ..... | ..... |
| Rochester, N. Y..... | 18 C. P. for mixed coal and water. | Some over 600 B. T. U.'s gross. |
| Omaha, Neb..... | 23 at works. 21.2 city hall. | 600 B. T. U. net..... |
| Ft. Wayne, Ind..... | 18 C. P..... | 550 |
| Duluth, Minn..... | 16 C. P..... | 600 |
| Memphis, Tenn..... | 20½ C. P..... | No test |
| Kansas City, Mo..... | Natural | 950 |
| Milwaukee, Wis..... | 17 C. P..... | 640 B. T. U..... |
| Des Moines, Iowa..... | 22 ..... | ..... |

COMPLAINANT'S EXHIBIT 71-A.

| Heat units. | Pressure. | Impurities. | | | Price of gas. | | No. consumers. | |
|---------------------|--|---|--------|--------|-----------------------------------|---|---|--------------|
| | | Am. | Sulp. | S. H. | Consumers. | City. | Per mile of main. | Total. |
| Requirements..... | Min. 1½" Max. 3¾" 1" allowed to max. for every 100 ft. elevation above w'ks. | 10 gr. | 20 gr. | None. | 95¢ | 95¢ | 160 | 28,000 |
| | | | | | | | Boiler fuel..... 2.80 | |
| | | | | | | | Gas coal 3.50 | |
| over 600 B. T. U.'s | Not less than 1½ in. water. | 5 gr. | 20 gr. | Trace. | 80¢. | | | |
| | | | | | 1.05 with 10¢ discount. | 8¢ per night for city P'ts 4,000 hrs. pr. yr. . . . | Anthracite coal 3.95 per ton. Gas coal \$3 per ton. Oil 28¢ per gallon..... | 50,000 |
| T. U. net..... | Between 2 and 4½ inches. | | | | 1.15 | 1.00 | | 22,000 |
| | Not less than 2½ in. water. | | | | 90¢ 1st 5 yrs. | | | |
| | Whatever required by city, 5 inches at center of city. | | | | 85¢ 2nd yr. | | | |
| | | | | | 75¢ | Same 75¢ | 703 | 6,325 |
| st | 4 inches day..... | | None. | | 1.00 | 1.00 | Don't Know..... | 14 or 15,000 |
| | 5 inches at least..... | Must be natural gas as it comes from the earth. | | | 25¢ | 25¢ heating. Free for lighting public bldgs. | Varies greatly | 50,000 |
| T. U..... | 1½" — 6"..... | | 30 gr. | Trace. | 80¢ per M for 1st 10,000 cu. ft. | Ditto | 170 | 72,000 |
| | | | | | 70¢ next. 60¢ over 20,000 cu. ft. | | | |
| | | | | | 90¢ | 90¢ | | 19,500 |
| | | | | | | | | 187 mi. |

Min. 125 to mi.



I enclose herewith copy of Rules and Regulations of the Railroad Commission pertaining to gas and electric companies; also a copy of our pamphlet gotten out by this company three years ago, giving prices charged for gas in the leading cities of this country.

Trusting this will give you the information desired, I am,

Yours truly,

Vice Pres't & General Manager.

Enclosure.

Cross examination of the witness Hanna resumed as follows:

Q. Mr. Hanna, will you examine the paper now shown you, being one of the file of papers which you produced and which has been marked Complainant's Exhibit 71, and state what that is?

A. This is a tabulation from certain of these cities, most of the cities, based on the reports that these cities made, together with a few notes as to the city of Des Moines.

Q. This is the data or tabulation that you spoke of as having on your desk when the ordinance in question was under consideration?

A. Yes.

Q. This Complainant's Exhibit 71-A is the tabulation of the data that you had obtained from these letters which you have previously stated you had on your desk at the time this ordinance was under consideration by the council, and is the information you furnished the council at that time, as you heretofore testified?

A. I don't think I testified that I furnished it to the council necessarily, except certain things I might have said, quoting from it.

4648 Complainant offers and reads into the record Complainant's Exhibit 71-A, as follows:

(Here follows Complainant's Exhibit 71-A, marked page 4648½.)

4649 Judge CARR: For the sake of keeping clearness in the record, complainant states that of the papers contained in the bundle of papers produced by Mayor Hanna and which have been marked Exhibit 71, complainant does not offer or read in evidence the first paper, being a printed copy of an ordinance apparently of the city of Minneapolis, marked "Passed February 23, 1910," the title of the ordinance being as follows: "Waiving and surrendering the privileges by the City of Minneapolis of its right *an* option to purchase, described and set forth and declared in Sections 9 and 10 of that certain ordinance passed on the 21st day of February A. D. 1870, by the common council of the city of Minneapolis and approved on the 24th day of February, 1870, entitled an ordinance granting to certain persons the right to manufacture and sell gas in the city of Minneapolis and legalize and confirm to the extent of the rights and privileges set forth therein by Chapter 301 of the special laws of the State of Minnesota for the year 1879, and prescribing the considerations given by the Minneapolis Gas Light Company for such waiver and surrender by said city."

The complainant does not offer or read in evidence the printed booklet contained in said bundle of papers which is entitled "An Ordinance providing for the appointment of an inspector of gas and defining the duties of such officer, and providing for the inspection of gas and gas meters, prescribing rules and regulations for the pressure, manufacture measurement, quality and distribution of gas supplied to the consumer, and for the enforcement thereof, and prescribing penalties for the violation of such rules and regulations passed by the city council of the city of Minneapolis, Minnesota, March 24, 1910, for the reason that the printed paper and printed book referred to are not material to any issue in the case, and to offer and read them in evidence would be an unnecessary encumbering of the record.

Q. Mr. Hanna, I wish you would refer to this tabulated data you said you had before the council and from which you gave your information and which is marked Complainant's Exhibit 71-A, and state what tabulated information you have here with regard to the number of consumers per mile of main, concerning which you spoke when you was on the stand before, and to which you attached some importance?

A. Of the city of Des Moines, I had at that time general information that there were about 19,500 service connections or consumers, and there were about 182 or 187—I seem to have two figures—of miles of main, and dividing 19,500 by this figure, I get 107 consumers.

Q. 107 consumers per mile of main?

A. Yes.

Q. What did you get by the other figures?

A. I have not made the division, but I suppose it would be somewhere three or four less than that perhaps.

Q. Then you ascertained in that way that there are in Des Moines, or were at the time, in December, 107 consumers per mile of main in Des Moines?

A. Yes.

Q. Now what other information in the way of consumers per mile of main does your data show?

A. I have a note here, in Minneapolis it is about 125.

Q. What else?

4651 A. These are the only ones I have worked out in detail.

Q. Now in your tabulation, haven't you got something with regard to Syracuse on the subject?

A. Yes, sir.

Q. What is contained in the column next to the last column, what are those figures intended to show?

A. The number of consumers per mile of main.

Q. Opposite the city of Syracuse you have 160, have you not?

A. Yes, sir.

Q. And that shows according to your data, and the information you then had, 160 consumers in Syracuse per mile of main?

A. That is the figure there, yes sir.

Q. Down at the bottom you have a figure, 170, in the same column opposite the city of Milwaukee?

A. Yes, sir.

Q. And that shows, according to this data, the number of consumers per mile of main in Milwaukee, does it not?

A. I think so. I have not verified it by the letter. This is made up by my Secretary, and I presume it is correct.

Q. I wish you would check that up with the letters, if you will, and see that that is accurate.

A. Yes, sir; they are correct.

Q. Have you verified the statement with regard to Syracuse and Milwaukee?

A. Yes, sir.

Q. And the statement contained in that tabulation, Exhibit 71-A, is correct as shown by the letters?

A. Yes.

Q. I think there is one other figure in that column, is there not, the figure 703 opposite the city of Duluth, Minnesota; is that
4652 the number of consumers per mile of main in the city of Duluth, according to your information?

A. According to the letter, yes.

Q. Did you verify that?

A. Yes, sir.

Q. That is correct according to the information which you have received?

A. Yes, sir.

Q. You found that in the city of Des Moines the number of consumers per mile of main was 107?

A. Yes, sir.

Q. Will you state how far apart those consumers were; that is, what would be the average of the distances, in other words, divide 107 into the number of feet in a mile, 5280 feet?

A. About 49 feet, I should judge.

Q. And that means that in Des Moines there is on an average a consumer every 49 feet, does it?

A. Yes, sir; that is what I said.

Q. Now Syracuse, which has 160 consumers per mile of main, will you please state about that, how close on an average the consumers are there?

Objected to on part of defendants as immaterial, and a mere matter of computation.

A. 33 feet.

Q. Now will you tell me about Duluth, how close the average distance of the consumers of Duluth is at 703 consumers per mile of main?

A. I have a notion that must be an error, being so different from the other cities. It would make slightly over seven feet.

Q. Do you mean in the city of Duluth there is on an average one consumer for every seven feet of main?

4653 A. If those figures are correct——

Q. Isn't it obvious they are not correct with regard to Duluth?

A. I would imagine they are not correct, because there is no other city I have any data on has anything like that.

Q. Did you make any test for relying on this information which you said you placed a good deal of reliance on, especially with respect to the consumers per mile of main, didn't you check that over before you accepted that figure?

A. That one in the case of Duluth I didn't pay very much attention to, as being so different from the others.

Q. It was the very strongest argument in favor of the idea you had in mind, to show a very large consumption per mile of main?

A. It showed a great many consumers per mile of main.

Q. Did you ever discover until now that that figure is obviously wrong?

A. I certainly had it just as obviously wrong then as I do now.

Q. Do you know how many miles of main the city of Duluth had if that figure is correct; did you divide the number of consumers per miles of main to see how many miles it had?

A. No, sir.

Q. I wish you would do that.

Mr. BRENNAN: I think that is unnecessary, because the witness says it was an abnormal condition.

Q. You show 6325 consumers; you can make that calculation in a moment?

A. Between nine and ten miles.

Q. It is about eight—which of course proves conclusively there is something wrong in those figures?

A. Yes, sir; I should think so.

Q. Did you call the council's attention to that and tell them they could not be relied upon at all?

4654 A. I don't think I mentioned that at all. I don't think I mentioned the miles of main or consumers.

Q. Had you prior to this time realized there was something

wrong with that figure, to show that they must be discarded as wholly unreliable?

A. I did not figure that out. I had read the different letters and had my secretary make the tabulation to use when the matter came up before the council.

Q. The Duluth letter contains this data, doesn't it?

A. Yes, sir.

Q. So the mistake was not the mistake of the tabulator of the data

A. No, sir.

Q. You evidently did not call your clerk's attention to that?

A. No, sir.

Q. And on this important matter to which you say you attach a good deal of importance, to the number of consumers per mile of main, of the three examples you give in this tabulated statement Duluth is one?

A. Of the three examples in the tabulation Duluth is one.

Q. Of course there is in the tabulation the city of Des Moines?

A. There is Des Moines and Minneapolis.

Q. Your idea was at the time you was considering this ordinance that the number of consumers per mile of main was an important matter to take into consideration?

A. Yes, sir, I thought so.

Q. And it follows, I assume, the more consumers per mile of main, the better for the company?

A. Yes, sir.

Q. You found according to your information as contained in this tabulation that in Syracuse, New York, they were charging 4655 95 cents for gas to the consumers and 95 cents to the city, and you found that they had 160 consumers per mile of main or one consumer every 33 feet on an average?

A. Yes, sir.

Q. Now you thought that justified a 90 cent rate in Des Moines, where there was only one consumer for every 49 feet?

A. I most assuredly did not.

Q. There was nothing in that information that led you to the conclusion that 90 cents was a reasonable rate for the city of Des Moines?

A. That particular phase of the information, no sir.

Q. That would go right the other way, wouldn't it?

A. Yes.

Q. Now you have Milwaukee left in these three instances, where you had data as to the number of consumers per mile of main, and concerning which you told us the other day you attached a great deal of importance, and upon which you placed a great deal of reliance, that is correct, isn't it?

A. I had also Minneapolis, which were four examples instead of three as you are assuming.

Q. Yes, that is right; I amend the question then in that way, I did not intend to mis-state it.

A. Yes, sir.

· Redirect examination by Mr. BRENNAN:

Q. Mr. Mayor, as I understand it, the bundle of letters which were marked Complainant's Exhibit 71, are in part, at least, letters which you mailed to officer- of different cities in the United States and in which letters you propounded certain questions?

4656 A. Yes, sir.

Q. And those letters were returned to you, in some instances with the questions as propounded answered?

A. Yes, sir; or partly answered.

Q. In other words, all this correspondence and the papers you have produced in connection with Exhibit 71 were information which you were endeavoring to receive prior to the passage of the ordinance?

A. Yes, sir.

Q. And the other papers identified by you, namely, Exhibit 74, was a transaction subsequent to the passage of the ordinance in controversy, Exhibit 74, being a communication to the members of the City Council, and attaching to the same a letter from Professor William D. Marks?

A. Yes, sir.

Q. That I say was subsequent to the passage of the ordinance?

A. Yes, sir; that was two months after I gathered this data.

Q. Now one of the letters to which counsel has called your attention is one purporting to be signed by A. D. Meeds, inspector of gas of the City of Minneapolis?

A. Yes, sir.

Q. I notice attached to that letter is what purports to be an ordinance providing for the establishment or appointment of an inspector of gas and defining the duties of such officer?

A. Yes, sir.

Q. Did that ordinance accompany the letter to which I have called your attention?

A. I think not. I think I got that ordinance, perhaps when I was in Minneapolis personally; I may have gotten it when I wrote.

Q. Did you have this ordinance in your possession and have you studied its terms and provisions before the introduction of
4657 the ordinance in controversy before the city council?

A. Yes, sir; a good while before. I was in Minneapolis about the time that this matter was settled in that city and went into it pretty fully with several men there, including the gas inspector.

Q. Would you make the same answer with reference to the ordinance waiving and surrendering the privileges by the city of Minneapolis, its right and option to purchase certain property and fixing rates for gas in the city of Minneapolis?

A. Yes, sir; I got these ordinances, both of them, in either February or April of 1910.

The defendants offer the two ordinances referred to in evidence, for the reason that counsel for complainant has introduced certain of the correspondence and letters received by the Mayor in connec-

tion with his investigations of the gas situation in Des Moines, and in order that the record may be more complete with respect thereto the defendants now offer in evidence the ordinance not offered by the complainant in connection with their Exhibit 71, and which ordinance is now marked by the reporter as the Defendant's Exhibit 71-A and which reads as follows:

The complainant objects to the Defendant's Exhibit 71-A for the reason that it is immaterial and has no tendency to prove or disprove any issue of the matter in controversy in this case and as simply unnecessarily encumbering the record.

Said Defendant's Exhibit 71-A is as follows:

4658

DEFENDANT'S EXHIBIT 71-A.

An Ordinance

Waiving and surrendering the privilege by the City of Minneapolis of its right and option to purchase, described, set forth and declared in Sections 9 and 10 of that certain ordinance passed on the 21st day of February, A. D. 1870, by the Common Council of the City of Minneapolis, and approved on the 24th day of February, 1870, entitled, "An Ordinance granting to certain persons the right to manufacture and sell gas in the City of Minneapolis," and legalized and confirmed to the extent of the rights and privileges set forth therein by Chapter 301 of the special laws of the State of Minnesota for the year 1879, and prescribing the considerations given by the Minneapolis Gas Light Company for such waiver and surrender by said city.

Whereas, the Common Council of the City of Minneapolis, on the 21st day of February, 1870, passed an ordinance entitled, "An ordinance granting to certain persons the right to manufacture and sell gas in the City of Minneapolis," which said ordinance was approved on the 24th day of February, 1870; which said ordinance was thereafter assigned by the grantees therein to the Minneapolis Gas Light Company, which is now the owner thereof, and of all rights and privileges thereunder; and which said ordinance was by Chapter 301 of the Special Laws of the State of Minnesota for the year 1879, legalized and confirmed to the extent of the rights and privileges set forth therein; and,

Whereas, Sections 9 and 10 of said ordinance are as follows:

4659 "SEC. 9. That if, at the expiration of forty years, the said city shall desire to purchase said franchise, and said gas works, they shall have the privilege of doing so upon the following terms, namely: That said city may purchase the franchise pertaining to its territory and gas pipes, works, fixtures and other property pertaining to said business at the actual value of the same, the value to be fixed by three arbitrators, who are to be chosen as follows: One by said city, one by the owners of the franchise, and the third by the arbitrators thus chosen, and the arbitrament or award of

value by these three, or a majority of them, shall be the price at which said city may purchase said franchise and property. SEC. 10. That should the city decline to purchase at the valuation as aforesaid, then said rights, franchise and privileges are to continue twenty years longer to the said persons, their heirs, executors, administrators, and assigns, with the conditions hereinbefore in this ordinance stated;" and,

Whereas, the City Council of said city deems it for the best interest of said city to waive and relinquish its right, option, and privilege to purchase, specified and conferred in and by said Sections 9 and 10, above recited, should said company accept this ordinance, and agree in all respects to comply therewith in the manner prescribed in Section 15 thereof, Now, therefore,

The City Council of the City of Minneapolis do ordain as follows:

SECTION 1. Surrender of right to purchase. That the city, in consideration of the agreement of the Minneapolis Gas Light Company its successors and assigns, to comply with, abide by 4660 and keep and perform all of the terms, conditions and requirements of this ordinance, on its part to be complied with or performed as herein specified (which agreement is to be expressed as provided in Section 15 of this ordinance) hereby expressly waives and surrenders its right, privilege and option to make the purchase mentioned, set forth, declared, and provided for in and by Sections 9 and 10 of the ordinance entitled, "An ordinance granting to certain persons the right to manufacture and sell gas in the City of Minneapolis," passed by the Common Council of the city on the 21st day of February, 1870, and approved on the 24th day of the same month; provided that such waiver and surrender by the city shall at all times be subject to the provisions of Section 12 hereof; and provided also that nothing in this ordinance contained shall be taken or construed to impair the right or power of the city to acquire any or all of the property of the company by the condemnation thereof, in the exercise of the right of eminent domain conferred or granted by any statute of the State of Minnesota now or hereafter in force.

SECTION 2. Price of Gas. That the company shall on the first day of the month succeeding the acceptance of this ordinance put into effect a price of eighty-five (85) cents per thousand cubic feet of gas delivered to private consumers and a price to the city for gas supplied to city gas street lamps and to the buildings of the city, and of the various boards and departments thereof, of sixty-five (65) cents per thousand cubic feet, which price to private consumers and to the city shall not be increased until the rates and prices for gas shall be again fixed and determined as hereinafter provided. 4661 All All bills to private consumers may be rendered at a price which shall exceed by fifteen (15) cents per thousand cubic feet, the price herein specified or hereafter fixed and determined as provided in Section 3 of this ordinance; and upon all bills so rendered, which shall be paid to the company within ten (10) days after the rendition thereof, a discount shall be allowed of fifteen (15) cents per thousand cubic feet, so as to make the net price

when so paid the sum herein specified, or hereafter fixed and determined as aforesaid.

SECTION 3. Regulation of Rates. That at any time after the expiration of three years from and after the first day of the month succeeding the acceptance by the company of this ordinance, and at any time thereafter, but not oftener than once in five years, the City Council may, or if requested in writing by the company so to do, shall, by ordinance, fix and determine the rates to be charged by the company both to the city and to private consumers therein; which rates shall in each instance be so fixed and determined, subject to the provisions of Section 5 hereof, and independent of whether or not the laws now or hereafter in force give to the City Council the right, power or authority to so fix and determine the same. The company shall thereupon comply with such ordinance as to rates, subject only to the provisions of said Section 5, and furnish gas at rates not to exceed those so fixed until the same shall be again fixed and determined as herein provided. And the company shall also at all times, unless otherwise determined by the City Council, furnish gas to all consumers other than the city and its various boards and departments, at a uniform rate, and without 4662 discrimination between them.

SECTION 4. Lighting of streets. That the City Council shall from time to time have the right, power and authority, if it so elect, independent of whether or not the laws now or hereafter in force grant such right, power or authority, but subject to the provisions of Section 5 thereof, by ordinance, to direct the company to equip the lamp posts used in the lighting of streets with gas with such lamps and other apparatus and appliances as shall by the City Council be deemed necessary or convenient therefor, and care for such lamp posts, lamps and such other apparatus and appliances, and also light and extinguish such lamps, all as the City Council shall require and direct, and all at such price per lamp per annum as shall be determined and fixed by the City Council. And the company shall at all times in all things comply with any and all reasonable requirements or directions of the City Council so made, subject only to the provisions of Section 5 hereof.

Provided, however, that should the city hereafter direct or require the company to equip the lamp posts used in the lighting of streets as herein specified, and the company so equip the same, and should the city thereafter for any reason discontinue the use of the equipment or any part thereof, so required to be furnished by the company, or itself undertake the care of such lamps and lamp posts and the lighting and extinguishing of such lamps or contract with or employ therefor some person or corporation other than the company, then and in that event the city shall purchase from the 4663 company all said equipment, then in serviceable condition, at the reasonable value thereof when so installed by the company (not exceeding the cost of the same thereto) less the fair value of its use while employed by it in the lighting of the streets; such value, if not agreed upon, to be determined by arbitration, as follows: The city shall select one arbitrator, and the company another.

these two shall select a third; and the appraisal of said equipment made by the three so selected or by a majority of them, shall be the price to be paid to the company by the city for the same.

SECTION 5. Rates and prices to be reasonable. That the rates and prices which shall be fixed and determined by the City Council under and pursuant to the provisions of Section 3 of this ordinance, and the price for the use of the lamps and other apparatus and appliances and the service to be rendered and performed by the company pursuant to the last preceding section, shall always be just and reasonable, and shall not be so fixed as to fail to afford a fair and reasonable return upon the company's capital investment, nor until the company shall be given a hearing or an opportunity therefor before the City Council or a committee thereof as to the reasonableness of the same; and the reasonableness of all such rates and prices shall always be subject to review and correction in any action or proceeding which shall be instituted therefor by the company in any court having jurisdiction of the subject matter.

That the company's "capital investment," as that term is used in this ordinance, shall be and mean the fair and reasonable value of its plant as a going concern, having regard to its condition
4664 of repair and its adaptability and capacity for generating and furnishing gas. In determining such value, no value shall be placed on good will, or upon the unexpired term of any franchise, or on future profits based upon any unexpired term thereof; and in the determination of such value no regard shall be had to the company's capitalization, as represented by its outstanding stocks and bonds.

That the term "plant" as used in this ordinance, shall in every case be understood to mean all and every part of the property belonging to or under the control of the company, which is used in the exercise of any franchise belonging thereto, and which is within the limits of the city, and necessarily devoted to the generating and furnishing of gas to the city or the inhabitants thereof, including all lands and all rights therein, and all buildings, machinery and apparatus devoted to such service.

SECTION 6. Sale of stocks and bonds. That the company shall not hereafter at any time sell or otherwise dispose of any of its bonds or other obligations or any new issue of its corporate stock, except in good faith and at their fair value, nor unless the consideration for the same shall be actual cash and be paid into its treasury and thereupon appropriated to the making of betterments or extensions of its plant, or to the payment of its pre-existing bona fide bonds or obligations; provided, however, that nothing herein contained, shall be so construed as to prevent the company from increasing its capital stock, or from issuing new bonds or other obligations under existing mortgages or otherwise, at any time, wherewith to purchase, pay for, take up, exchange or replace any mortgage bonds heretofore or hereafter issued or sold by the
4665 company, in good faith, and at their fair value.

SECTION 7. Publicity. That the company shall, from and after the passage and acceptance of this ordinance, at all times

keep within the city, proper and accurate books of account, records and vouchers, which shall, at all times, show correctly and in detail, all its financial transactions, including all of its receipts and disbursements, and the particulars thereof, and all data needful for the preparation by competent accountants of the statements hereinafter provided for.

That the company shall, in the month of January of each and every year, commencing with the year 1911, prepare and file, under oath, with the Comptroller of the city the following, to-wit:

(a) A statement of all assets and liabilities of the company, constituting what is usually known as the balance sheet of accountants, including therein an accurate statement of all corporate stock and bonds of the company at the time outstanding; but not including therein any sum as the value of any franchise of the company in excess of the actual cost of the same; and also,

(b) A statement giving for the previous calendar year the gross receipts of the company from the sale of gas and of by-products and from all other sources of income, item by item; also all expenditures of the company during said year, including, item by item, all dividends and interest paid, the cost of all material entering into the manufacture of gas, all operating expenses, salaries, the cost of all repairs, improvements, betterments and extensions and of all property, real or personal, by it purchased; said statements to be so prepared as to show the net earnings of the company, during such calendar year, from its regular business and from all other sources.

That the company shall, at all times, permit any officer or other person designated by the City Council for that purpose, to inspect its plant and all of its other property, and shall, at all reasonable times, allow the City Comptroller of the City, or his deputy, or any accountant or expert selected by the city to inspect all the books, records and vouchers of the company and obtain therefrom any information or data which the City Council may, by resolution, require. And the City Council may, if it so elect, each and every year, commencing with the year 1911, employ one or more accountants, who, when so employed, shall be given by the company full and complete access to all of its said books, records and vouchers; and who shall prepare therefrom and file with the City Clerk within ninety days statements in the form designated in paragraphs "a" and "b" of this section.

That the company shall also, from time to time, furnish such other information regarding the property comprising its plant and business, and the conduct thereof, as the City Council may, by resolution, require. And all information furnished to the City Council by the company, under the provisions of this ordinance, shall be in writing and shall be certified to under oath by the president, secretary or other proper officer of the company.

SECTION 8. Right of purchase. That the city shall have the right at its option at the end of twenty (20) years succeeding the 24th day of February, 1910, to purchase the plant of the company by

4667 paying therefor its value, which value shall be the company's capital investment, determined as provided in Section 5 hereof. And in case the city and the company cannot agree upon such value, then the same shall be ascertained by appraisal in the manner following:

That the city through its City Council shall, at least thirty (30) days before the expiration of the term which the appraisal or purchase is to be made, select two appraisers, the company within thirty (30) days thereafter shall select two appraisers, and the four appraisers so selected, failing to agree within six months as to such value, shall, within thirty (30) days thereafter select a fifth disinterested appraiser. In case the company shall refuse or neglect to appoint two appraisers, or in case the four appraisers named by the city and the company cannot, within the time aforesaid, agree upon such value or upon the fifth appraiser, then the full bench of the district court of Hennepin county, State of Minnesota, or a majority of the judges thereof, may select the other appraiser or appraisers upon application either of the city or of the company. The appraisers so chosen shall forthwith proceed to determine and appraise such value as of the date of the expiration of the term for which the appraisal or purchase is proposed to be made. The decision of a majority of such appraisers shall be final and conclusive, and shall, as soon as made, be given in writing to the city and the company, who shall equally bear the expense of the appraisal proceeding.

That said appraisers may personally or by a person or persons designated by them, inspect the plant and all records, books of account, vouchers, bills, contracts, and documents of the company for the purpose of fully informing themselves of such 4668 value.

That any vacancy or vacancies occurring at any time in said board of appraisers by death, resignation, disqualification or inability to act, may be filled within fifteen days, by the party or body making the original appointment, and, if not so filled, by the judges of said court, or a majority of them, upon the application of either the city or the company; provided, five days' previous notice in writing of such application shall have been given to the other party.

That nothing herein contained shall obligate the city to purchase said plant; but if the city shall elect to purchase the same, it shall make such election by ordinance adopted by the City Council within ninety (90) days after the price is so agreed upon, or the decision of the appraisers given as aforesaid. And the city shall have three years after the expiration of the term for which the appraisal shall be made, in which to pay the price so ascertained. If the city shall so elect to purchase, the company shall retain the possession of said plant, maintain the same in good condition and operate the same as herein specified, and be entitled to and receive the profits arising therefrom until the purchase price, ascertained as aforesaid, shall have been paid. But no addition, extension or enlargement of said plant shall be made after the city's election

to purchase the same and before payment therefor, without the consent of the City Council thereto and to the cost thereof, which cost shall be paid by the city in addition to the purchase price.

That such purchase, when consummated, shall terminate, or transfer to the city, any and every franchise, right and privilege the company may have or claim under the ordinance mentioned in the preamble hereto, or under the so-called "St. Anthony Ordinance," referred to in Section 10 hereof.

SECTION 9. Hours of labor and wages. That no person employed by the company, in manual labor, shall hereafter be required or permitted by it to labor more hours in any calendar day than shall be required or permitted by law upon work done under any contract, involving the employment of labor, made by or on behalf of the State of Minnesota. And all laborers employed by the company shall hereafter receive wages which shall be just and reasonable, and not less than shall be customarily paid for labor of like character, and requiring like skill or experience.

SECTION 10. St. Anthony Ordinance. That any valuation that may for any purpose hereafter be made of the company's plant or property shall not include any sum as the value of any right, privilege or franchise in terms conferred by that certain ordinance entitled "An ordinance granting to certain persons the right to manufacture, furnish and sell gas in the city of St. Anthony, Minnesota," in form passed by the City Council of the City of St. Anthony on the 5th day of December, 1871, and approved on the same day, which ordinance was in form amended as to certain of its provisions, on the 8th day of April, 1872. And the company by the acceptance of this ordinance and its agreement to comply therewith, as provided in Section 15 hereof, shall surrender, relinquish and release any and every right, privilege or franchise mentioned or in terms granted in or by said ordinance so adopted by the City Council of St. Anthony and so amended as aforesaid, as far as the same, or any thereof, extend or purport to extend, beyond or after the 24th day of February, 1930.

4670 SECTION 11. Consolidation forbidden. That the company shall not at any time hereafter sell, convey or transfer any right, franchise or privilege granted or conferred in or by the ordinance mentioned in the preamble hereto and in Section 1 hereof, or any interest therein, or its plant and property, or any part thereof, to any person, copartnership or corporation, now or hereafter operating or interested in any electric or power plant, within the city, or furnishing light, heat or power in any form to the city or the inhabitants thereof. And the company shall not at any time hereafter purchase or acquire any interest in the franchise or property of, or directly or indirectly consolidate or divide its plant or business or the earnings thereof with any such person, co-partnership or corporation, by means of a pool or holding company or in any other manner or form whatsoever.

SECTION 12. Effect of company's non-compliance. That in case the company at any time hereafter violates any condition, requirement or stipulation of this ordinance, on its part to be complied

with or performed, either by failing, neglecting or refusing to do what is herein required, or in the doing of that which is herein forbidden, it shall in such case forfeit and pay to the city as a penalty therefor the sum of fifty (50) dollars, which, if not paid, may be enforced and collected by the city from the company, by an action at law in any court having jurisdiction thereof. That in addition to such penalty, so to be incurred as aforesaid, whenever and as often as the company shall continue any such violation of this ordinance without, in good faith, remedying the same by the doing or by the correction of the act, the nonperformance or doing of which shall have constituted such *such* violation

4671 thereof, for the period of thirty (30) days after written notice of the same shall be given to the company by the city, thereupon the waiver and relinquishment by the city, specified in Section 1 hereof, shall be annulled, and the city's option, right and privilege to demand an appraisal and to purchase, set forth and declared in Section- 9 and 10 recited in the preamble hereto, shall at once revive and remain operative and in full force for two (2) years thereafter; provided, however, that any such annulment of said waiver and relinquishment, or any such revival of such option, right and privilege, shall not in any event, even though the city does not purchase, continue or extend any franchise which the company may have beyond the 24th day of February, 1930. Provided, further, that said relinquishment and waiver shall not be annulled or said option, right or privilege be revived or become operative as aforesaid, until the city council, after a hearing or an opportunity therefor shall be given the company before the city council or a committee thereof, shall determine that such violation of this ordinance by the company shall have occurred, and shall by reason thereof declare the annulment of such waiver and relinquishment and the revival of such option, right and privilege; and provided, also, that such determination and declaration by the city council shall always be subject to review and correction in any action or proceeding which shall be instituted therefor by the company in any court having jurisdiction of the subject matter.

SECTION 13. Other ordinances unaffected. That the passage of this ordinance and its acceptance by the company shall in no respect repeal or affect the validity of any provision of the
4672 ordinance mentioned in the preamble hereto, not inconsistent or in conflict with the terms hereof, or of any existing or future ordinance adopted by the City Council relating to the inspection of gas or gas meters, or prescribing rules or regulations for the manufacture, measurement, sale, pressure, quality or distribution of gas supplied by the company.

SECTION 14. Definitions. That in this ordinance, and in the various sections and parts thereof, the terms "city", "Company," "city Council", and "city clerk" shall be understood, taken and construed to refer respectively to the City of Minneapolis, the Minneapolis Gas Light Company, its successors and assigns, the City Council of said city, and the City Clerk thereof; and the word "streets" shall include avenues, alleys, public squares, parks and park-ways, within the limits of the city.

SECTION 15. Acceptance. That this ordinance shall be null and void unless the company shall within ten (10) days from the publication thereof, file with the City Clerk a written acceptance of the same and an agreement on its part signed and acknowledged in its behalf by its president (or in his absence by its vice-president) and secretary, to comply with, abide by, keep and perform all the terms, conditions and requirements herein contained upon its part to be complied with or performed.

SECTION 16. That this ordinance shall take effect and be in force from and after its publication and its acceptance by the company as hereinbefore provided.

Passed Feb. 23rd, 1910.

4673 The defendants in the same connection and for the same purpose now offer and read in evidence the ordinance not offered by the complainant in connection with its Exhibit 71, which is an ordinance providing for the appointment of an inspector of gas and defining the duties of such officer in the city of Minneapolis, which said ordinance is now marked by the reporter as Defendants' Exhibit 71-B.

To this offer of Defendants' Exhibit 71-B the complainant makes the same objection as last above, and to both of said exhibits adds the further objection that they are incompetent and not the best evidence, in no wise identified, and therefore incompetent.

Said Defendants' Exhibit 71-B is as follows:

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DEFENDANTS' EXHIBIT 71-B.

An Ordinance.

Providing for the appointment of an Inspector of Gas and defining the duties of such officer, providing for the inspection of gas and gas meters, prescribing rules and regulations for the pressure, manufacture, measurement, quality and distribution of gas supplied to consumers, and for the enforcement thereof, and prescribing penalties for the violation of such rules and regulations.

Passed by the City Council of the City of Minneapolis, Minn., March 24th, 1910.

An Ordinance.

Providing for the appointment of an Inspector of Gas and defining the duties of such officer, providing for the inspection of gas and gas meters, prescribing rules and regulations for the pressure, manufacture, measurement, quality and distribution of gas supplied to consumers, and for the enforcement thereof, and prescribing penalties for the violation of such rules and regulations.

The City Council of the City of Minneapolis do ordain as follows:

SECTION 1. Definitions. That in this ordinance and the various sections and parts thereof the words "city" and "company" shall be understood, taken and construed to refer respectively to the City of

Minneapolis and the Minneapolis Gas Light Company, the word "streets" shall include avenues, alleys, public squares, parks and parkways within the limits of said city; and the words "Mayor," "City Clerk," "City Treasurer," "City Engineer," "Inspector" and "City Council," shall be understood, taken and construed to refer respectively to the Mayor, the City Clerk, the City Treasurer, the City Engineer, the Gas Inspector, and the City Council of said city.

SECTION 2. Appointment of Inspector. That the City Council shall, at the time specified in Chapter 3 of the City Charter for the appointment of other city officers appoint as Inspector a suitable person recommended to the City Council in the manner hereinafter provided, as one competent to test gas meters and the quality, purity, pressure and illuminating and heating power of gas. What the head of the department of chemistry, and the head of the department of physics of the Minnesota State University and the principal of the Minneapolis Central High School shall constitute a board for the examination of all persons desiring to apply for such position of Inspector. Said board shall, when seasonably requested to do so by any person desiring to take such examination fix a time when it will examine applicants for said position, which time, unless the City Council shall otherwise direct, shall be in the month of December of each even numbered year; and it shall notify the City Clerk of the time so fixed at least two (2) weeks prior thereto. The City Clerk shall, within one week prior to the time so fixed, publish in the official paper of the city a notice of the meeting of said board and the purpose thereof. At the time so fixed, and at such time or times thereafter as said board may by adjournment determine, it shall examine applicants in such manner as it shall deem necessary, respecting their competency to test the quality, purity, pressure and illuminating and heating power of gas and the correctness of gas meters. After such examination, said board shall forthwith, and during the month when it shall so convene, certify to the City Council the names of such persons as said board shall deem fully competent to make such tests. And only persons whose names are so certified shall be eligible to be appointed Inspector; provided, however, that any person who shall have previously held the office of Inspector may be appointed to said office without such certificate from said examining board; and provided, also, that a person who has once passed a satisfactory examination before said board, and whose competency has been so certified to by it, shall be subsequently eligible for appointment to the office of inspector without again being examined thereby.

That each member of said board of examiners, as hereby constituted, shall be paid by the city the sum of twenty-five (25) dollars for his services as examiner of applicants for said position.

SECTION 3. Deputies and Assistants. That the Inspector may, by and with the consent and approval of the City Council, appoint one or more deputy inspectors, each of whom shall be competent to make any and all of the tests, herein provided for, which he shall be re-

quired or directed to make. Each said deputy so appointed shall have the power, under the direction of the Inspector, to perform any duty which he shall be competent to perform and which the Inspector is herein or hereby required to do. And the Inspector and each of his deputies, shall take and file an oath of office, as other city officers are required to do, and shall respectively execute to 4677 the city and file with its City Clerk a bond, the Inspector in the sum of one thousand dollars, and each of his deputies in the sum of five hundred dollars, with such conditions as the City Council shall prescribe or approve.

That the Inspector may also, by and with the approval of the City Council, appoint one or more assistants (who need not necessarily be competent to make the tests herein provided for) who shall under his direction supervise the installation of gas and gasoline lamps used in the lighting of streets; see to it that the equipment thereof complies with the requirements of the City Council and that the same are lighted and extinguished in accordance with the schedule prescribed therefor; and also assist the Inspector in the auditing of bills for street lighting, as the same are from time to time presented, and the performance of such other duties as the Inspector may prescribe or direct.

SECTION 4. Maps, Card Catalogues and Blue Prints. That maps of all its existing system of mains and service connections shall, within six (6) months from the passage of this ordinance, be made or completed by and at the expense of the company as follows: (a) Sectional maps, each drawn to a scale of one hundred feet (100 feet) to the inch, upon sheets twenty inches (20 inches) in width by thirty inches (30 inches) in length, showing the location and size of all mains in its system and all services from mains to houses or other connections (in so far as the same are known to the company) and designating all such mains and services, so that, by scale measurement, the distance of each main from the boundary line of the street, and of each service from the nearest line of the nearest intersecting street, may as accurately as possible be 4678 ascertained and determined. (b). A general map of the whole city divided into four rectangular sections cornering at or near the old City Hall, drawn to a scale of four hundred feet (400 feet) to the inch, showing by proper signs the location and sizes of all mains, all district governors and all booster or high pressure mains, but not the details of intersection or house connection or services, which map shall be supplemented from time to time by new maps so as to show all new extensions, district governors and booster or high pressure mains, as the same shall hereafter be laid or installed by the company.

That the company shall at its own expense, within six months from the passage of this ordinance, prepare and deliver a complete set of blue prints of all said sectional and general maps, to the Inspector and City Engineer, respectively, and thereafter make such additions to, or changes in, said blue prints that the same will at the end of each year then correspond with said maps as the same

shall be from time to time added to or enlarged; all of which blue prints shall be kept and retained by said Inspector and City Engineer, as a part of the records and files belonging to their respective offices. And the company shall also at its own expense, and as soon hereafter as may be practicable (in any event within nine months after the passage of this ordinance) prepare and deliver to the City Engineer a true and correct copy of all of its card catalogues, giving every detail and the measurements locating all its services and mains, which shall at all times be kept up to date for the use of the City Engineer and be placed and kept in his office, as a part of the records and files belonging thereto.

SECTION 5. Laying of Mains and Services. That the company shall at the request of any person about to become a consumer of gas, in front or at the side of whose premises a main shall exist, without cost to him, connect such main to said premises by the usual service connection. That the company shall also upon the order of the City Council, free from all cost to the city or its citizens, extend its mains in such streets as may be designated, which shall have been previously graded, and in such streets, though ungraded, where the grade shall have been established, and the contour of the ground on an average, figured along the entire length of the proposed extension and over the full width of the roadway, shall be not more than six inches above or below the established grade. Provided that in every such case at least one consumer on an average for every one hundred and thirty-three (133) feet of the extension ordered, shall first in writing agree to take gas from the Company, for a period of not less than one year at the then established rates, or that the estimated annual sales of gas derived from the extension ordered will yield at least twenty per cent (20 per cent) of the total cost thereof. And provided also that the company may after obtaining proper permits and locations therefor from the City Engineer enlarge, replace, extend or improve its system of mains or services in excess of the above mentioned requirements to such extent as it shall deem necessary for the improvement or expansion of its business or the regulation of gas pressure.

That the location of new mains in the street shall conform as nearly as may be to the existing system of the company, and shall in all cases be established by the City Engineer, without whose duly signed permit, designating the location, no main or house connection shall be laid. And all mains hereafter laid or replaced by the

company shall be cast iron mains and shall be not less than
4680 six inches inside diameter, unless the City Engineer and the

Inspector shall jointly, after careful examination in each instance and for a special reason deemed by them to be sufficient, grant a special permit for a smaller size of wrought iron main or for a steel main more than thirty (30) inches in diameter. And the company shall also, so far as practicable, place all gas mains hereafter installed or laid, all services therefrom and all services from existing mains, at such depth below the surface of the ground as will prevent any deterioration from frost or cold in the quality or flowage of the gas supplied therefrom.

That whenever any street is hereafter paved or re-paved (not intending to include ordinary grading or macadamizing of streets) the company shall remove therefrom all mains less than six (6) inches in diameter, replace therein cast iron mains six (6) inches or more in diameter (unless the City Council shall, by resolution, in special instances for reasons deemed to be sufficient, otherwise provide) and shall also examine and renew all defective services, and also add services for such prospective consumers as may be obtained by a careful canvass of the locality.

That if at any time it shall be necessary to change the position of any main or service of the company to permit the city to lay, make or change street grades, pavements, sewers, water mains or other city structures, or city work of any kind, such changes in mains or services shall be made by the company at its own expense according to the instructions of the City Engineer.

That all digg-ng of ditches, laying of mains and other operations required for gas distribution, shall be done at the risk of
4681 the company, which shall assume the entire risk of all accidents and hold the city harmless from all cost or damage occasioned thereby; and it shall, if so directed by the City Council, file such bond as may be required to indemnify the city against all damage or other suits resulting therefrom.

That before the company shall interfere with, remove, or alter any pavement, sewer, sewer inlet, or other city structure, it shall deposit with the City Treasurer a sum sufficient to repair, replace, or re-erect the same in the manner required of electric and conduit companies. And the company shall also, when so directed by the City Engineer replace all material excavated from the streets in the laying of its mains or conditions, in such manner as he shall direct; and shall also, if so directed by the City Engineer, during the time intervening between its removal and replacing of street paving of a permanent nature, temporarily plank the space from which the paving has been removed, in such manner as to insure a reasonably smooth street surface across or along the same.

SECTION 6. Meters and Meter Testing. That the company shall, upon the request of any consumer not in arrears with respect to the payment of any gas bill due to the company, install for his use a prepayment meter, otherwise called a "quarter meter," of not more than twenty light capacity, in lieu of the meter in common use which is read monthly; and whenever any such prepayment meter is removed, the consumer shall be refunded such part of any deposit, therein previously made, which shall not have been exhausted.

That the Inspector shall, on or prior to the first day of January, nineteen hundred and eleven (1911), provide and thereafter maintain at the city's expense a suitable place (to be known as
4682 the meter inspection room) for the purpose of testing therein all meters complained of by consumers of gas and all other meters used by the company for the measurement thereof. And the company shall be entitled to have a representative present in said room at all times while any meter is being tested, proved or sealed therein, and be entitled also at all reasonable times to test and prove

the accuracy of any appliance used in the testing of meters and the methods used in the testing thereof.

That when a consumer shall make complaint concerning the accuracy of his meter and pay to the Inspector a fee of one dollar, the Inspector shall give notice of such complaint to the company, which shall thereupon, in the presence of the Inspector at such time as he shall designate, remove said meter from the premises of the consumer to the meter inspection room, and shall also at the same time install, in place of the one so removed, another meter duly tested, proved and sealed. The Inspector, at the time of such removal of any meter, shall securely paste thereon a slip of paper containing his signature, the date of such removal and a description of the premises from which the meter is removed. The meter so removed shall, unless another time be agreed upon, be tested at 9 o'clock a. m. of the succeeding day (omitting Sundays and holidays) at which time a representative of the company and also the consumer may be present. And if upon being tested the meter so complained of be found inaccurate or defective upon any of the tests herein provided for, the one dollar (\$1.00) paid by the complainant shall be returned to him, and the company shall in his stead pay one dollar (\$1.00) to the City Treasurer, as herein provided.

And whenever any meter upon being tested, as in this paragraph provided, shall be found to measure quantities more than 2 per cent in excess of the standard measurement of gas, the consumer from whose premises such meter shall have been removed shall be entitled to receive from the company a rebate or return of a sum equal to the percentage of such excess of all moneys paid by the consumer to the company and measured by such meter from the time it had been installed or previously tested until the time of such retesting thereof, not exceeding, however, a period of six months.

That the company shall not after said inspection room shall have been so provided install any gas meter in the premises of any consumer which shall not have been, subsequent to the prior use of the same, tested, proved and sealed by the Inspector, as herein provided. And the company shall not thereafter use any such gas meter within said city more than three (3) years after it shall have been tested, proved and sealed, or retested, re-proved and re-sealed by the Inspector, in accordance with the provisions hereof; provided, however, that the company may continue the use of each of its meters now installed and in service unless complaint thereof be made, or unless found to be defective, until the same shall be tested by the Inspector, as herein provided.

That from and after the time when the inspection room shall be provided and maintained by the Inspector, as aforesaid, the company shall detach and remove thereto to be tested, proved and sealed by the Inspector as herein provided, its meters now or then in service as follows, to-wit: At least one thousand (1,000) thereof each and every month, and all of the same prior to the first day of April, nineteen hundred and thirteen (1913): said meters to be

so removed and delivered to the Inspector respectively in
 4684 the order in which the same have been tested, or retested
 by the company; another meter duly tested proved and sealed
 being installed in the place of each one so removed. And (except
 as hereinbefore specified, in case of a meter complained of by a
 consumer) for each such meter which shall be thus proved, tested
 and sealed by the Inspector, the company shall pay to the City
 Treasurer the sum of twenty-five (25) cents as specified herein.

That the Inspector shall carefully protect and guard all meters
 which come into his possession for inspection, and shall tightly
 cork all such meters during the time the same are in his custody
 and not being tested. And the Inspector in the testing of each
 meter shall subject the same to three tests: first, one which proves
 accurately its registration by means of the standard prover in ordi-
 nary use; second, one which proves the steadiness of the light, and
 the freedom of the meter from leakage; and, third, one which proves
 that the meter registers small quantities of gas. If under the first
 test, any meter shall be found to register quantities incorrectly to
 an extent exceeding two per cent (2 per cent); or if under the
 second test, the meter is found to leak, or if any noticeable fluctua-
 tion in the light is observed; or if, under the third test, the meter
 fails to register small quantities of gas consumed, the meter shall
 be turned over to the company for readjustment and the same
 shall not be again used until the defect is remedied, the meter again
 tested, found to be correct and duly sealed. But every meter shall
 be considered correct as to the first test when duly certified and sealed
 which shall register quantities varying not more than two (2)

percentum from the standard measure of gas. That the
 4685 Inspector shall have a card made which he shall attach to
 each meter tested by him and upon such card shall be given
 the data connected with the testing of the meter and the time of
 the testing. If the meter be found to be correct and be so certified
 by the Inspector, he shall seal the same by a suitable device. And
 no person other than the Inspector or his deputy shall unseal any
 such meter or deface, alter, or remove any card so attached thereto
 by him, or place thereon any card or writing purporting to be the
 certificate of the Inspector.

That the Inspector shall also number consecutively each and all
 meters by him listed upon the said card attached hereto, and shall
 enter in a book kept as a part of the records of his office the number
 of each meter so tested, the date of the testing thereof, the manu-
 facturer's name and number and the company's number if the same
 appear thereon.

That the Inspector shall upon the first day of each month file in
 the office of the City Clerk a certified statement, showing the sum
 due from the company to the city for the testing of meters upon the
 complaint of consumers, or otherwise, during the previous calendar
 month; and the company shall within five (5) days thereafter pay
 to the city treasurer the sum due from it to the city for such testing
 of meters during such previous month. And all money received by
 the Inspector upon complaint of any consumer, when it is deter-

mined that his meter is not inaccurate or defective by any of the tests herein prescribed, shall forthwith be paid to the City Treasurer by the Inspector.

4686 SECTION 7. Testing Stations. That the City shall at its own expense, as soon as practicable, provide and maintain at least two testing stations (hereinafter called the testing stations) which shall be more than one mile apart, and each of which shall be at or near a center of gas consumption, and not less than one mile, nor more than one and one-half miles, measured in a direct line, from any manufacturing plant of the company.

That the city shall also at its own expense provide and maintain in each of said testing stations such calorimeters, photometers, pressure gauges and other supplies and apparatus as shall be necessary to determine the pressure, purity, candle power and heating value of the gas supplied by the company, and in the making of any other tests that may from time to time be deemed necessary or desirable by the Inspector.

That all of the equipment and supplies so to be provided and maintained by the city and so to be used in the making of tests, shall be of the standard types and qualities, and such as are generally used for such purposes, and shall be tested for accuracy from time to time, so that the tests made hereunder shall be as accurate and fair as is reasonably possible.

That the company shall run a pipe to each testing station (and if so demanded by the Inspector, a new pipe to the existing City Hall Station) from the gas main nearest thereto, all under the supervision of the Inspector, and in such manner as he shall approve; or, if this be not done by the company, the Inspector is authorized to put in the service himself at the cost of the company. And each pipe so run to any testing station shall be free from all gas cocks or other obstructions which might interfere with, or in any way

4687 affect, the proper flow or quality of gas.

That until the city shall provide, maintain and equip testing stations, as herein provided, all tests except as to pressure shall be made at the testing station now located at the City Hall (herein called the City Hall Station). Until such time the provisions of this ordinance as to the averages at separate stations shall be disregarded and the tests and the averages of tests as made at the City Hall Station, as to all matters except pressure, shall be considered the tests and the average of the tests to be made at said testing stations so to be provided, maintained and equipped by the city.

That in case of any dispute between the city or its inspector on the one side and the company on the other, as to the methods or apparatus employed in the testing of pressure, purity, candle power or heating value of the gas supplied by the company, the latest notification of the Gas Referees covering Metropolis Gas, London, England, at the time obtainable, when not inconsistent with the express provisions of this ordinance, shall prevail and be conclusive as to such matters upon all concerned. And if any technical matter arise and be in dispute, not covered by this ordinance or by such notification, an arbitration board, as between the city and the company, may

be provided upon the demand of either the company or city as follows: The city shall select one expert and the company shall select another; these two selecting a third to be jointly paid by the city and the company; and the decision of these three or a majority of them upon the matter so in dispute shall be final and conclusive, as to such technical matter, for the period of one year thereafter.

4688 SECTION 8. Methods of Testing—General Provisions.

That all tests herein provided for shall be made by the Inspector or his deputy; and the company may, if it so desires, have a representative present at any of the usual or stated tests herein mentioned. All tests of candle or heating power, regularly required, shall be made between nine o'clock a. m. and five o'clock p. m., unless such time be for any reason changed by the Inspector, in which event he shall give the company reasonable notice in advance of the change of time. And the volume of all gas used upon such tests shall be corrected to a standard temperature of sixty (60) degrees Fahrenheit and to a standard barometric pressure of thirty (30) inches of mercury. But the Inspector may, if he deem it advisable, make tests of the pressure, purity, candle power and heating value of gas at as many places (including the works of the company) as he may select without notifying the company thereof, such tests to be in addition to the usual tests made at the regular testing stations; but the same shall not be used by the Inspector in the making out of the daily or monthly averages herein provided for.

That the Inspector shall keep a full and complete record of all tests by him made, which shall at all reasonable times be open to the inspection of the company, and shall make monthly reports thereof to the City Council. He shall moreover, each day post in a public place in the testing stations or City Hall, the results of any and all tests upon which the gas is found not to comply with the requirements of this ordinance.

That whenever upon any test made of gas for the purpose of ascertaining its purity, candle power or heating value, as
4689 herein provided, it shall be found in any such respect not to comply with the requirements of this ordinance, the Inspector shall forthwith and within twenty-four hours thereafter (not including Sundays or holidays) deliver at the office of the company a notice in writing specifying such defect; and he shall thereupon make similar tests on each and every day thereafter, except Sundays and holidays (advising the company in like manner as to the result thereof), until the gas shall be found to be free from such defect.

That whenever the Inspector is required by this ordinance to deliver any notice or other paper at the office of the company, Mayor or City Clerk, he may do so by a deputy or other messenger; and that the company shall at all times, during the usual office hours, have some representative in its office who shall receive such notice or paper so delivered and acknowledge in writing the time of the receipt thereof.

SECTION 9. Impurities in Gas. That tested as provided herein the gas supplied by the company shall not at any time contain more than four (4) grains of ammonia in any one hundred (100) cubic feet thereof; nor shall the gas, so tested, at any time between the first day of April and the first day of October in any year contain more than twenty (20) grains of total sulphur in any one hundred (100) cubic feet of the same, or at any other time more than thirty (30) grains of total sulphur in any one hundred (100) cubic feet thereof. And the gas supplied by the company shall at all times be wholly free from sulphuretted hydrogen, as determined by the particular test herein specified.

4690 That the Inspector shall test the gas supplied by the company to determine the quantity of total sulphur and ammonia therein at least once in each week, and to determine the presence of sulphuretted hydrogen therein on each one of at least twenty (20) days of each calendar month, using for that purpose in each instance the tests prescribed therefor in the notification of the Gas Referees covering Metropolis Gas, London, England, published in the year 1909, or such other test as may be agreed upon by the company and the inspector and which as applied to total sulphur and ammonia will give accurate results. And whenever and as often as the test prescribed for sulphuretted hydrogen shall show the presence thereof in the gas, or the test prescribed for total sulphur and ammonia, respectively, shall show the presence thereof in excess of the quantity herein prescribed, he shall as to each test wherein the gas fails to comply with the requirements herein make a like test on each and every day thereafter (except on Sundays and holidays) until the test shall show that the gas complies, in the particulars involved therein, with the requirements of this section.

SECTION 10. Candle Power of Gas. That the gas supplied by the company, tested as provided in this section, shall be of at least eighteen (18) candle power; that is, of such quality that the gas when burned at the rate of five cubic feet per hour, under standard conditions of temperature and barometric pressure, in any ordinary lava tip or open flame burner in common use, giving the full candle power of the gas, shall give a light as measured by any standard barphotometer in common use, of not less than eighteen (18) standard candles—it being understood that a standard candle is the unit of light prescribed and maintained by the United States Bureau of Standards, known as the International candle, which is equal to one
4691 Pentane candle, one Bougie decimale, one American candle, 1.11 Hefner units, or 0.104 Carcel units.

That the Inspector shall test the candle power of the gas upon at least twenty (20) separate days of each month in the making of such tests he may use Pentane lamps, previously standardized by the United States Bureau of Standards or such other suitable burner or apparatus agreed upon between the Inspector and the company as will measure the correct candle power of the gas, as herein defined.

That the Inspector shall make two (2) separate and distinct tests on each day when tests are made to determine such candle power, at an interval of not less than four (4) hours, at the City Hall Station

or testing stations, and the average of the tests so made shall be deemed to represent the candle power of the gas on the day of such tests.

SECTION 11. Heating Power of Gas. That the gas supplied by the company, tested at the City Hall Station or testing stations as provided herein, shall give a monthly average gross heating value of not less than six hundred (600) British thermal units per cubic foot of gas; and that the daily average gross heating value of the gas supplied by the company, tested at any such station, shall not on any day be less than five hundred and fifty (550) British thermal units.

That the gas shall be tested for the purpose of determining its heating value twice each day, at an interval of not less than four (4) hours, upon at least twenty (20) days during each and every month, at the City Hall Station or testing stations.

That the average of each of the two tests at the City Hall station or at the testing stations (hereafter called the daily average 4692 at the stations) shall be deemed to represent the gross heating value of the gas on the day of such tests; and that the daily average so ascertained, for each and every day of the month upon which said tests shall have been made, shall be again averaged and the result (hereinafter called the monthly average at the stations) shall be deemed to represent the gross heating value of the gas during the then current calendar month.

That the Inspector shall after the computation of any monthly or daily average of the heating value of gas, so ascertained forthwith, and within twenty-four (24) hours, deliver a statement thereof at the company's office, so it may know the averages thus obtained, and also file a statement of such monthly average in the office of the City Clerk.

SECTION 12. Pressure of Gas. That the company shall proceed forthwith to repair, reinforce and re-equip its present system of distribution and regulation and equalize the same, so that its system shall as soon as possible be in all respects adequate to meet as to pressure of gas, the requirements hereinafter set forth, within the time hereinafter specified, and in any event on or prior to January first, nineteen hundred and twelve (1912). And to that end, the company shall, within two (2) years after this ordinance shall become effective, construct and thereafter maintain a gas holder, at some suitable place within the city upon the east side of the Mississippi River of such capacity as will adequately supply the demand for gas in that locality, and maintain the pressure thereof within the limits herein prescribed. And the company shall also hereafter maintain, extend and improve its distributing system, with due 4693 regard to the fact that it is the intention of the city (hereby expressed) to require the company on and after January first, 1913, without the use of house governors, to maintain a pressure of gas as uniform as may be, that will never be less than two (2) inches nor more than four (4) inches of water pressure in any of its mains on the level of the water in the gas works holder, or elsewhere except as the same may be due to the elevation of the main above such level.

That on and after the first day of July, nineteen hundred and

ten (1910) the pressure of gas supplied by the company, tested at any point where the unobstructed service pipe enters the building of the consumer, shall never be less than two (2) inches nor more than six (6) inches of water pressure, and that the variation of pressure upon any day of any such point shall never be greater than one hundred per cent (100 per cent) of the minimum pressure upon the same day and at the same point. Provided, however, that the company may prior to January first, nineteen hundred twelve (1912) install a house governor at the place where the gas enters the consumer's premises upon filing in each instance with the Inspector a written declaration of its purpose to install the same, together with a description of the premises in which it is to be placed, which declaration shall be kept by the Inspector as a part of the records and files of his office; provided also that the company may, after January first, nineteen hundred and twelve (1912) install any such house governor upon obtaining from the Inspector a special permit therefor, as hereinafter provided. The company shall whenever any such house governor is removed, forthwith file written notice of such removal with the Inspector, and shall on the first day of each 4694 and every month file in the office of the City Clerk its certified statement showing the aggregate number of such house governors then in use by the company. But the company shall not, after the first day of January, nineteen hundred and twelve (1912) continue the use of any house governor previously installed, and shall not thereafter install, maintain or use any such governor, except at such place and for such period of time only as the Inspector shall, after careful examination in each instance and for some special reason, deemed by him to be sufficient, by his duly signed permit, allow. And whenever any such special permit shall be granted, a duplicate copy thereof shall be kept and preserved by the Inspector as a part of the records and files of his office.

That from and after the passage of this ordinance the Inspector shall at least once each month, if he so determines, without notifying the company, make a general test of the maximum and minimum pressure of gas supplied by the company at any hour or at all the hours of one whole day; and the Inspector shall also obtain and keep a continuous record of gas pressure daily at not less than ten (10) points within the district furnished with gas, by means of recording gauges, so distributed as to cover as nearly as possible the whole distribution system of the company, the supply of gas to said recording gauges being taken from unobstructed service pipes direct from the mains. The Inspector may also, in like manner, at any time prior to January 1st, 1912, without notice to the company, determine at as many points as he may deem advisable, the gas pressure in any street main, or in any service pipe at the inlet and outlet of the meter of any consumer.

4695 And it shall be the duty of the Inspector and City Engineer during the years nineteen hundred and ten (1910) and nineteen hundred and eleven (1911) by reference to the record of gas pressure so obtained, and their knowledge of the work being done by the company to restore and perfect its distribution system,

to make monthly joint or separate reports concerning the same to the City Council and to suggest and recommend such additions, alterations, or enlargements therein as will in their opinion correct any defect in gas pressure deemed by them or either of them to then exist therein.

That if at any time, between the first day of July, nineteen hundred and ten (1910) and the first day of January, nineteen hundred and twelve (1912) the pressure of the gas supplied by the company to any consumer shall fail to comply with the requirements of this section, and the consumer complain thereof to the company, it shall, if the defect be due to local conditions, within seventy-two (72) hours thereafter, and if due to other conditions, within a reasonable time thereafter, remedy the defective pressure, so that the pressure will comply with such requirements; and if necessary to remedy the same the company shall at its own expense install and maintain a house governor at the point where the gas enters the consumer's premises, first filing with the Inspector a notice of its intention to install the same, as hereinbefore provided. And should any such consumer, after the company has undertaken to remedy any such defect in pressure, pursuant to the requirements of this paragraph, be of the opinion that the same has not been corrected, as herein required, and give to the Inspector notice thereof, the Inspector shall forthwith test the pressure of gas supplied to the consumer's premises by the use of recording or visual gauges and furnish to the consumer and the company, respectively, a written statement of the results thereof. And the company shall also, on each and every Monday between July 1st, 1910, and January 1st, 1912, file with the Inspector its certified statement showing the number of such complaints made within the previous calendar week, together with the respective names and residences of the complainants, and the respective points at which the pressure is so complained of.

That on and after the first day of January, nineteen hundred and twelve (1912) the Inspector, if he deems it proper, may, and in case improper pressure as herein defined be complained of shall, test the pressure of gas in the service or house pipe at the inlet or outlet of any consumer's meter by means of a recording or visual gauge; and if it be thus found that the pressure at any such point does not comply with the requirements of this ordinance, due allowance being made for meter friction, the Inspector shall within twenty-four hours thereafter deliver at the company's office a notice in writing of the defect; and the company shall, if the defect be due to imperfect conditions in the service pipe or in any governor placed by the company therein, remedy such defect within forty-eight (48) hours thereafter, or if due to any other cause, remedy such defect within a reasonable time thereafter. And the company shall, upon remedying such defect as aforesaid, forthwith and within twenty-four hours notify the Inspector that the defect has been corrected, so he may ascertain if the pressure then complies with this ordinance.

4697 SECTION 13. Meter deposits, disconnections and gas bills.

That the deposit required of any customer of gas as security for payment therefor shall not exceed the probable amount of his one month's consumption thereof. And the company shall pay interest at the rate of six per cent per annum on every such deposit heretofore or hereafter made for the purpose aforesaid, if the sum exceeds one dollar, (\$1.00), such interest to be paid semi-annually.

That forty-eight (48) hours' notice in writing shall be given the company by a consumer before he shall quit the premises where he shall have been supplied with gas; and in default of such notice the consumer so quitting shall be liable to pay the company for any gas supplied to said premises before the time for the next reading of the meter therein.

That in addition to the usual form of gas bills made out by the company there shall be printed upon the face thereon in bold type the following words: "Discount allowed for deficiency in gross heating value;" and the amount of the discount, if any there be, to the consumer pursuant to the provisions of this ordinance shall be inserted after such words and be deducted from the amount of the bill.

SECTION 14. Discount for heating deficiency. That should the monthly average gross heating value of the gas at the City Hall Station or testing stations (determined according to Section 11 hereof) at any time fall below six hundred (600) British Thermal Units, every consumer of gas within the city during the month when the deficiency shall occur shall be entitled to and shall receive pro rata discount upon his gas bill therefor. The per centage

4698 of such discount shall be ascertained by dividing the number of British Thermal Units of such average monthly deficiency at the City Hall or testing stations by the standard of thermal units specified therefor by said Section 11, which per centage shall be used by the company in computing the discount of its bills for the month, which discount shall be deducted from the gas bill for the succeeding month or be paid to the consumer in cash.

That the Inspector shall deliver at the office of the City Clerk and the Mayor respectively, and also deliver at the office of the company, a copy of his computation of the discount in the monthly bills, for each month in which a discount therefrom shall be made pursuant hereto, on or before the 5th day of the succeeding month, and also post a copy thereof in the usual place selected by him for that purpose, certifying therein that the average of heating value as determined at the City Hall Station or testing stations, is the average of at least twenty (20) tests made two in each day upon separate days during said month, wherein the deficiency shall occur.

SECTION 15. Penalties. The company shall be subject to and pay a fine of one hundred dollars (\$100) whenever and as often as it shall violate this ordinance and be convicted thereof in the Municipal Court of the City of Minneapolis in each of the following cases, viz: (a) In case it shall fail for any three successive days after January first, nineteen hundred and twelve (1912) to correct

within a reasonable time any defect in the pressure of gas (as prescribed in Section 12 hereof) not due to improper conditions in the service pipe or the governor connected by the company thereto;

(b) In case of any deficiency for any three successive days 4699 in the candle power of the gas prescribed by Section 10 of

this ordinance; (c) in case of the presence in the gas for any three successive days of sulphuretted hydrogen according to the test prescribed by Section 9 hereof; (d) in case of the presence in the gas for any three successive days of sulphur other than sulphuretted hydrogen, in excess of the quantity prescribed in said Section 9; (e) in case of the presence in the gas for any three successive days of ammonia in excess of the quantity prescribed in said Section 9; (f) in case of the company's failure for any three successive days to furnish gas the average daily gross heating value of which at the City Hall Station or testing stations shall not be at least five hundred and fifty (550) British Thermal Units as prescribed in Section 11 hereof. Provided, however, that before the company shall in any such case be or become subject to any such fine, the Inspector shall, upon the discovery of the specified defect in the pressure or quality of the gas, by the test hereinbefore provided for the detection thereof, forthwith and within twenty-four (24) hours thereafter (not including Sundays or holidays) deliver at the office of the company, a notice in writing specifying such defect and deliver a like notice at the office of the Mayor and City Clerk respectively; and shall, if upon the succeeding day he finds the same defect, again give notice thereof in like manner, and shall on the third succeeding day if he finds the same defect forthwith and within twenty-four (24) hours thereafter give notice thereof by means of an affidavit, stating the three days' defect, duly verified before an officer authorized to administer oaths, delivered at the office of the company, and by like affidavit delivered at the office of the Mayor and City Clerk respectively.

4700 That if the company shall violate this ordinance by not delivering to the City Engineer and Inspector, respectively, blue-prints of the maps of its mains and services and a copy of its card catalogue in the form prescribed by Section 4 hereof, within the time or times prescribed in said section, or by failure to supplement, add to or enlarge the same as therein provided, it shall, upon conviction thereof in said Municipal Court, be subject to and pay a fine of one hundred dollars (\$100), and for each day's additional delay in so delivering the same thereafter shall, upon conviction thereof in said court, be subject to and pay a further and additional fine of fifty dollars (\$50).

That whenever and as often as the company shall on or after the first day of January, nineteen hundred and twelve (1912), violate this ordinance by failing to correct any defect in pressure of gas due to any improper condition of the service pipe or any governor connected by the company therewith, within seventy-two (72) hours after notice of such defect, as hereinbefore provided, it shall upon conviction thereof in said Municipal Court be subject to and pay a

fine of ten dollars (\$10) and for each additional seventy-two (72) hours' delay in correcting such defect, it shall upon conviction thereof in said court be subject to and pay a further and additional fine of ten dollars (\$10).

That whenever and as often as the company shall at any time on or between the first day of July, nineteen hundred and ten (1910) and the first day of January, nineteen hundred and twelve (1912) violate this ordinance by failing to remedy any defect in in
4701 pressure of gas upon the complaint of any consumer, as required by Section 12 of this ordinance, it shall upon conviction thereof in said Municipal Court be subject to and pay a fine of ten dollars (\$10); and for each additional seventy-two (72) hours' delay in remedying such defect, as required by said section, the company shall upon conviction thereof in said court be subject to and pay a further and additional fine of ten dollars (\$10).

That whenever and as often as the company shall at any time violate this ordinance, in the laying or replacing of any main which shall not be a cast iron main or shall be less than six inches inside diameter, without the consent of the City Council or without having previously obtained a special permit therefor from the City Engineer and Inspector, as provided in Section 5 hereof, the company shall upon conviction thereof in said Municipal Court be subject to and pay a fine of one hundred (100) dollars. And upon any such violation of this ordinance each and every officer, agent and servant of the company and every other person concerned therein, or who shall directly or indirectly participate in such violation thereof shall, upon conviction thereof before said Municipal Court, be punished therefor by a fine of one hundred (100) dollars, or by imprisonment for a term not exceeding ninety (90) days.

That whenever and as often as the company shall violate this ordinance by failing, neglecting or refusing to lay any service or main when required or ordered to do so pursuant to the provisions of Section 5 hereof, it shall upon conviction thereof in said Municipal

Court be subject to and pay a fine not exceeding one hundred
4702 (100) dollars, and for each day's additional delay in laying such service or main, the company shall upon conviction thereof in said court be subject to and pay a further and additional fine not exceeding fifty dollars.

That whenever and as often as any person other than the Inspector or his deputy shall unseal any meter, or deface, alter or remove any card or paper attached thereto or pasted thereon by the Inspector, or place thereon or attach thereto any card or writing purporting to be the certificate of the Inspector, he shall upon conviction thereof in said Municipal Court be punished by a fine of twenty-five dollars or by imprisonment for a term not exceeding twenty-five (25) days.

That whenever and as often as the company shall make, deliver or transmit to any consumer a gas bill contrary to the requirements of Section 13 hereof, or fail to deduct from any gas bill rendered to a consumer, or to pay to the consumer in cash, the full amount of any discount determined and computed, as provided in Section 14 hereof, which may become due to such consumer as therein provided, the

company shall upon conviction thereof in said Municipal Court be subject to and pay a fine not exceeding the sum of ten dollars (\$10).

And whenever and as often as the company, at any time hereafter, shall violate any provisions of this ordinance, on its part to be complied with or performed, in any respect or particular not hereinbefore in this section specified, either by failing, neglecting or refusing to do that which is herein in this ordinance required, or in the doing of that which is herein in this ordinance forbidden, it shall

4703 upon conviction of such violation thereof in said Municipal Court be subject to and pay a fine not exceeding the sum of one hundred (100) dollars.

SECTION 16. Repeal. That all ordinances of the city and parts thereof contravening or inconsistent with the terms of this ordinance are hereby repealed.

SECTION 17. Time of becoming effective. That this ordinance shall take effect and be in force from and after its passage and publication.

Passed March 24th, 1910.

PLATT B. WALKER,

Vice President of the Council and President pro tem.

Approved March 31st, 1910.

J. C. HAYNES, *Mayor.*

Attest:

HENRY N. KNOTT,
City Clerk.

4704 Q. Now, Mr. Mayor, referring to complainant's Exhibit 74, a copy of which I show you, to which your attention was called by counsel for complainant, I will ask you if that document, or the original, or a copy of the same was at any time to your knowledge filed with the City Clerk, or in any manner so that it would reach the city counsel in an official way?

A. No, sir; I did not file it with the council.

Q. Now, I notice that it has reference to, that is it bears a date subsequent to the passage of the ordinance in controversy, and I wish you would explain to the Master just how it was and what your purpose was in addressing such a communication to the members of the council at a time which related subsequent to the passage of the ordinance, and why you did not file or cause the same to be filed in the office of the city clerk to become a regular official document in the records and archives of the city?

Objected to on part of complainant as immaterial, in so far as it calls for the construction of the documents, or either of them. It is simply incompetent as calling for the mere conclusion and opinion of the witness. The letter of Professor Hanna to the council was only called to his attention for the purpose of leading up to Mr. Marks' letter.

A. I had undertaken to try to see if we could not settle the controversy without getting into litigation over it.

Complainant moves to strike the statement of the witness as immaterial and incompetent to any issue in the case.

Judge CARR: The record may show that that matter was not introduced but was only referred to for the purpose of calling 4705 Mr. Hanna's attention to the fact that he had received a report from Mr. Marks and had received a letter which had been offered in evidence.

Mr. BRENNAN: We want to make up the record for the purpose of making a motion to strike the whole business from the record.

Judge CARR: As a matter of fact I think the record will show that letter was not offered in evidence but was read to Mr. Hanna for the purpose of refreshing his recollection with regard to the letter received from Mr. Marks.

Q. Now, Mr. Mayor, you say that you had been endeavoring to effect some sort of a settlement between the parties with respect to this controversy, and had you had some negotiations prior to the time you wrote this letter to the members of the council, with any of the officers of the gas company?

Objected to on the part of complainant as immaterial and incompetent, because no interviews, conversations or communications and attempt to settle the pending controversy would be competent or admissible for any purpose.

A. Yes.

Q. Why did you not file this document in the office of the city clerk?

Complainant interposes the same objection last made.

A. There were several reasons. We had agreed that we would not make these attempts at negotiations for settlement public, and perhaps other reasons than that. I wished to communicate directly with the members of the council instead of making a public document of it.

Complainant moves to strike the answer for the same reasons as given in the objections to the question.

4706 Q. And it was to respect that agreement that you did not file this in the office of the clerk and make it public?

Complainant interposes the same objection.

A. At least in part.

Q. And the report you received from Professor Marks, attached to Exhibit 74 and introduced in evidence in this case by the complainant, you may tell the Master whether that letter was requested by you from Professor Marks to enable you to carry on these negotiations with the Gas Company?

Complainant interposes the same objection.

A. Yes, sir; Mr. Marks had already made a verbal report along these lines.

Q. To whom had he made that report?

A. To myself, other members of the council and the members of

the legal department. I wished to have that report in writing, so that I might be justified for anything we might do.

Q. Well, state to the Master what the fact is as to whether it was to be used by you in further negotiation looking to the settlement of the controversy?

Complainant interposes the same objection.

A. Yes, sir; it was to be as a scientific basis for what I had already proffered the Company from my standpoint as a city officer as a basis of settlement.

Q. And it was in no sense a report as a public document?

Complainant interposes same objection, and further it is leading.

A. No, sir.

Mr. BRENNAN: At this time the defendants move to strike and expunge from the record all of the cross examination of this witness with respect to the letter addressed by the witness as Mayor 4707 of the City of Des Moines to the members of the City Council under date of February 27, 1911, together with the letter or report of Professor William D. Marks, attached thereto, for the reason that it now appears from the testimony of the witness that the letter above referred to, together with the report of William D. Marks were used by the witness in connection with negotiations being conducted between himself and officers of Des Moines Gas Company, the complainant in this case, with the understanding and agreement that such negotiations would not be made public and that said letter attached to Exhibit 74 was not in fact filed with the City Council as a public document, nor in the office of the city clerk, and therefore said documents are entirely privileged, and incompetent, irrelevant and immaterial for any purpose in this case.

The MASTER: I think that objection is well taken, because this comes after the ordinance was passed and could not affect any action at the time of the ordinance. In so far as it was to refresh the memory of this witness it would be competent.

Judge CARR: As to his letter to the council, as I have already said, that letter has not been offered in evidence by us, but the Marks letter which is included in the motion to strike is a very material document from our point of view and cannot be objected to on the ground that the counsel states in the motion.

The MASTER: Let me make this suggestion on that proposition: It is an unsworn statement to which Mr. Marks' attention was not called.

Mr. GUERNSEY: I beg you- pardon, he was asked about this 4708 letter on cross examination.

The MASTER: If it was used for that purpose, it might be competent as bearing on his credibility as a witness. That is all it could be under any circumstances. But a letter of that kind at the time of the cross examination should be produced and the witness see it.

Mr. GUERNSEY: He was asked about it and the counsel for the city were asked to produce it at that time.

The MASTER: Yes, I recollect about it. I wanted simply now to have you understand how I viewed it.

Mr. BRENNAN: To the objections I have already dictated into the record we want to add the further objection, for the reason that the matters and things set forth in the letters and communications forming a part of Exhibit 74, related to a time subsequent to the passage of the ordinance in controversy and subsequent to the commencement of this action. And to the end that the record may be made complete with respect to such matter counsel for defendants desire to further interrogate the witness with respect to two additional letters bearing upon the same transaction, and in so doing expressly disavow any intention of violating the agreement entered into between the parties, but only for the purpose of having the record made complete, inasmuch as counsel for complainant have introduced a part of the record relating to said transaction.

The MASTER: So far as the letter of Professor Marks is concerned, the Master now expresses no opinion as to its admissibility as bearing upon the credibility of Mr. Marks as a witness.

Mr. GUERNSEY: The only thing we are concerned in here 4709 is this letter written by Professor Marks. The other letter was merely to refresh the witness' recollection. As I understand this rule of privilege, it protects what the parties disclose to each other for the purpose of bringing about a settlement. The reason for the rule is to encourage these negotiations. It does not appear here in the record and it is not true as a matter of fact that this letter was ever disclosed by Mayor Hanna to the Gas Company in connection with the negotiations at any time, so that it could not possibly come within that rule. He is not testifying and I am sure he will not testify he ever disclosed that letter to the Gas Company at any time. The matter of privilege does not go beyond protecting what he has disclosed in connection with the negotiations in order to further them.

The MASTER: Mr. Hanna's letter would not be competent evidence. It might as against him individually.

Judge CARR: This Marks letter as to that I understand the *the* master has expressed no opinion.

The MASTER: Yes, but on the other matter I have expressed an opinion.

Judge CARR: I want to call your honor's attention to the other matter; it was not offered in evidence at all. It was read over to Mr. Hanna and he was interrogated in regard to it, but it was not offered in evidence.

Mr. BYERS: Exhibit 74 was offered in evidence.

Judge CARR: I beg your pardon, but it was not.

Q. Mr. Mayor, I show you a letter bearing date February 7, 1911, which the reporter has marked Defendant's Exhibit 72, and addressed to Mr. Jansen Haines, manager of the Des Moines Gas Company, Des Moines, Iowa, and I will ask you if that is a true 4710 copy of a letter which you mailed to Mr. Haines at or about the date which the letter bears?

A. Yes, sir; this is a copy of the letter which I addressed to Mr. Haines.

Q. Is that a true and correct carbon copy of the original letter which you mailed to him?

A. Yes, sir, I think so.

Q. I wish you would examine a letter under date of February 14, 1911, addressed to Hon. James R. Hanna, Mayor of the City of Des Moines, Iowa, and marked as Defendants' Exhibit 73 in this case and state if that is a letter which you received from Mr. Jansen Haines, Manager of the Des Moines Gas Company, complainant in this case?

A. Yes, sir; this is the letter which I received in reply.

Q. Do you remember just when it was that you requested of Professor Marks the information which you secured from him in Complainant's Exhibit 74?

A. I had asked for it along about the date Mr. Marks left the city, near the 1st of February, and then I requested it in a letter of about February 11th, I think.

Q. Well now prior to the time that you wrote the letter marked Defendants' Exhibit 72, under date of February 7, 1911, you may tell the Master what the fact is as to whether you had carried on some negotiations with the officers of the Des Moines Gas Company or with their counsel?

Objected to on part of complainant as immaterial and incompetent and incompetent because it relates to a matter of attempted adjustment or compromise in a pending — and is for that reason incompetent.

A. I had conducted negotiations with Mr. Haines personally, and later with Mr. Haines and counsel.

Q. Now I ask you again what purpose you had in securing from Professor Marks the information that you requested of him at that particular time and which was given you as shown by Complainant's Exhibit 74?

Complainant interposes the same objection last made.

A. I had been proceeding upon my own information in the earlier negotiations and wished to have some more scientific confirmation of my own opinion, and Mr. Marks was brought here to make the preliminary survey of the situation and give me and the council the result of such a preliminary investigation, to guide it.

Mr. BRENNAN: Now if the Master, please: There have been identified two letters which form a part of the negotiations described by the Mayor, and in order to make the record more complete with respect to complainant's Exhibit 74, are necessary to be introduced and read in evidence; but we have no desire to open up these negotiations contrary to the agreement between the parties, and will not offer Defendants' Exhibits 72 and 73 if counsel for complainant will agree to strike and expunge from this record the report of William D. Marks given to the Mayor of the City of Des Moines, and the Mayor's report, under the circumstances under which the same was submitted.

Judge CARR: Counsel for complainant will make no such agreement, and for the reasons heretofore fully stated.

Mr. BRENNAN: In view of the fact that counsel for complainant decline to withdraw Exhibit 74, or any part of the same, the defendants not offer and read in evidence Defendants' Exhibit- 72 and 73 for the purpose of furnishing the complete transaction, and which are as follows:

4712 Complainant objects to Exhibits 72 and 73 for the reasons stated in the last objection to the testimony of the witness.

Mr. BRENNAN: We would like to have the record show that the objection is not made on the ground that Exhibit 72 is offered in the form of a copy.

Judge CARR: It may be so understood.

The said Defendants' Exhibits 72 and 73 are respectively as follows:

4713 "DEFENDANTS' EXHIBIT 72." J. P. B.

"CITY OF DES MOINES,
DEPARTMENT OF PUBLIC AFFAIRS,
Feb. 7, 1911.

Mr. Jansen Haines, Manager, Des Moines Gas Company, Des Moines, Iowa.

DEAR SIR: Agreeably with your request for a proposition from me as to the nature of an ordinance which I would recommend to the council for passage in order to effect a settlement of the controversy existing between the City and the company with respect to gas rates, I have to say:—

1. I would recommend that the rate be fixed at ninety-two (92¢) for each one thousand cubic feet with a provision that all bills to consumers may be rendered at a price which shall exceed by ten cents (10¢) the price herein specified, and upon all bills so rendered which shall be paid to the company on or before the 15th day of the month following that in which the gas is furnished, a discount shall be allowed of ten cents (10¢) per thousand cubic feet so as to make the net price ninety-two cents (92¢).

2. A uniformity of rates to all consumers, but contracts for lower rates to large consumers, provided, that all such large consumers are placed on the same basis as to price and quantity.

3. The company have the right to charge and collect a minimum payment of fifty cents (50¢) per month on each meter installed, provided that if the gas bill at regular rates exceeds fifty cents (50¢) per month this minimum shall not be collected in addition thereto.

4714 4. The company to furnish gas of eighteen (18) candle power and of a thermal value averaging 600 (600) British thermal units per thousand cubic feet. This average to be computed each month from observations made on not less than twenty (20) separate days of the preceding month. The minimum thermal value permitted at any time to be not less than five hundred fifty (550) British Thermal units.

5. The company to pay two (2) per cent of the gross receipts to the city as a license or occupation tax for gas sold during each year.

6. A provision in the ordinance that the city does not in any manner recognize any franchise or other rights claimed by the company to use the streets, highways, avenues, alleys or public places for the purpose of laying or maintaining mains and pipes in supplying or distributing gas.

7. The rate herein fixed to continue for a period of five (5) years, at the end of which time, the same to be adjusted for the succeeding five (5) years on a basis equitable and just to both the city and the company. Whether this should be upon the basis of the amount of sales of gas or by arbitration, I have not fully determined, but it seems to me that we could work out some satisfactory plan.

I understand your pressure tests are quite satisfactory and the percentage of impurities reasonable, and I have no doubt we can adjust these matters without difficulty.

These suggestions are offered in the hope of effecting a settlement of the gas rate question for which we have been striving in our several conferences, and shall not be used for any other purpose whatsoever, and especially, shall have no connection with the litigation in event that the same are not acted upon, which is in accordance with our agreement.

Kindly let me have a reply not later than Thursday.

Yours very truly,

— — —, Mayor.

"DEFENDANTS' EXHIBIT 73." J. P. B.

Office of Des Moines Gas Company.

Reply to letter of February 27, 1911.

Referring to rate for gas.

DES MOINES, IOWA, *February* 14, 1911.

Hon. James R. Hanna, Mayor, City of Des Moines, Iowa.

DEAR SIR: I beg to acknowledge your letter of the 7th inst. submitting a proposition for a settlement of the controversy existing between the city and the Gas Company in respect to gas rates. I regret that I have been unable to reply to your favor before to-day on account of an illness, which has confined me to the house for the last week.

In my communication to the City Council, addressed to the Superintendent of Streets and Public Improvements, under date of November 22, 1910, I submitted the facts and figures showing that our present rate of \$1.00 was not compensatory and that, therefore, any reduction from this rate would not be fair or reasonable.

The more complete knowledge of the property and its value which I have obtained since that time from a detailed inventory, now approaching completion, and the valuation placed upon it by competent engineers, has demonstrated the correctness and fairness of the views which I expressed at that time.

Notwithstanding this fact, I have at all times felt so
4716 strongly the desire of an amicable settlement of the contro-
versy that I very greatly appreciate your request for a con-
ference and the opportunity for negotiations which you presented to
me in our various interviews beginning early in January.

Because of this desire for an amicable settlement, I have given to
the several concessions proposed by you the fullest consideration, and
I am prepared to offer every concession on our part that I believe it
is possible for the Company to make.

After fully considering the advantages to the company of the
discount for prompt payment of bills, as stated in the latter part of
paragraph one of your proposition, the minimum payment, as stated
in paragraph three of your proposition, the reductions from our pres-
ent standard, as stated in paragraph four of your proposition; and
the saving to the company of the great cost of protracted litigation, I
find they do not justify a reduction in the rate to 92 cents which you
suggest in paragraph one of your letter and would, therefore, not be
acceptable to the Company.

In my last interview with you on February 4, 1911, in response
to your request for a definite proposition as to what I would be will-
ing to recommend to the company, I made the following proposition,
which I believe would be an acceptable basis for settlement, pro-
vided it is incorporated into an ordinance, satisfactory in terms, and
provided it is adopted by the unanimous action of the Council:

1. A rate of 95 cents for five years from January 1, 1911, and 90
cents for the next five years.

2. An average of eighteen (18) candle power.

3. An average thermal value of six hundred (600) British thermal
units, from October 1st to April 1st (the average candle power and
thermal value to be computed each month from observations
4717 on not less than twenty (20) separate days of the preceding
month); the minimum thermal value permitted at any time
to be not less than five hundred fifty (550) British thermal units.

4. \$1.00 minimum monthly bill for each meter.

5. All bills to consumers may be rendered at a price which may
exceed by ten cents the price specified in No. 1 hereof, and upon all
bills so rendered which shall be paid to the Company on or before the
15th day of the month following that in which the gas is consumed,
a discount shall be allowed of 10 cents per thousand (1,000) cubic
feet, so as to make the net price as shown in No. 1.

6. The Company to pay to the City two per cent (2%) of its gross
receipts from the sale of gas, as has been done under the contract
which expired January 1, 1911.

In giving to your proposition the consideration hereinbefore
stated, and to do everything in my power to get together, I have con-
cluded to accede to your proposition with respect to the minimum
payment as expressed in paragraph 3 of your communication.

I have given to this subject the most painstaking consideration
and am fully convinced that the concession in rate as contained in
my proposition is all that it is possible for the Company to stand, and
maintain its present standard of efficiency and service. It is the
best, therefore, that I am able to recommend.

In proposing to recommend a ninety cent rate at the expiration of five years, I am showing my confidence in the growth and development of our city to an extent which will make it possible for the Company to then operate under a 90 cent rate.

Very respectfully yours,

JANSEN HAINES, *Manager*"

J. H.—E. D."

4718 Recross-examination by Judge CARR:

Q. Mayor Hanna, you have stated that the letter which you wrote to the members of the council and in which there was enclosed the letter and report from Professor Marks, Exhibit 74, was not filed in the clerk's office for the reason that there was some agreement to keep negotiations out of the newspapers, not to make them public, is that correct?

A. That was a reason at least, yes sir.

Q. Can you explain why it is then, Mr. Hanna, that in the newspaper articles to which your attention has already been called, namely, an article in the Register & Leader, published under date of February 21, 1911, and an article in the Tribune under the same date, full publicity of the Marks letter to you is given in large quotations or extensive quotations made from it, and the information given out that you had received such a letter, if you were to keep that under cover in compliance with some agreement made—I ask you if you can give any reason why such extensive publication in the public press was given of the letter?

A. I don't remember just what may be in that.

Q. You may examine and see. (Produces clippings.)

A. I don't believe there is any reference there to the negotiations for a compromise.

Q. I didn't ask you that, just note the question.

A. The question is rather complex. But we had engaged Mr. Marks to come here and make a report of the gas situation, and some justification for our ordinance, and I gave such publicity perhaps—I don't remember the incident—I gave such publicity to his report as would sustain us in having passed our ordinance

4719 before the first of January.

Q. Then you gave to the reporter the information which is found in these publications, did you not?

A. I don't recall; I suppose I did.

Q. And you showed them necessarily the Marks letter or report from which they have published extracts?

A. I don't suppose I did. I may have read certain parts to them or had the secretary do so, or sometimes one gives a reporter his confidence asking him not to publish certain things.

Q. But it is apparent from the reading of the article that the reporter did have before him the communication or some part of it, inasmuch as it appears he has accurately copied quite extensively from the letter?

Objected to on part of defendants as assuming that he had the original before him at the time of writing the article.

A. I have compared this closely to see and suspect I either read certain parts to him or may have shown him certain parts.

Q. Now you had in mind, as you say, an agreement with Mr. Haines that any talk you might have, and negotiations you might have, that this subject should not be made public, unless something come of it?

A. Yes, sir.

Q. Now, in giving out the information with regard to this Marks letter, you did not consider that you was violating your agreement with Mr. Haines at all?

A. Certainly not.

Q. Was it because you did not consider the communication from Marks as being involved in that agreement you had made with Mr. Haines, or as being in any wise connected with your negotiations with Mr. Haines?

A. Those parts of it at any rate, yes sir. I think I should not say just that. Certainly they did furnish me a basis for these negotiations. I did not think by giving them out I was violating or making public the fact they were the basis of the negotiations.

Q. That is because the Marks letter was not a matter that was involved directly in your negotiations with Mr. Haines; that is to say, it was not a matter you had communicated to Mr. Haines or was involved in any way with your confidential talk with Mr. Haines?

A. The letter was not, no; the subject matter of it was.

The complainant offers and reads in evidence the two newspaper clippings referred to, which are marked respectively Complainant's Exhibit- 75 and 76.

The defendants interpose the same objections as were made to the offers of the report of William D. Marks and the letter of the Mayor to the members of the council known as Complainant's Exhibit 74, and now renew their offer and willingness to withdraw Exhibits 72 and 73 on the condition that the Complainant will expunge and strike from the record all testimony growing out of and connected in any manner with the negotiations between the parties looking for a settlement of the controversy.

The said Complainant's Exhibits 75 and 76 respectively read as follows:

4721

COMPLAINANT'S EXHIBIT 75.

J. P. B.

"Expert Thinks Offer Fair One.

Prof. William D. Marks Says 90 Cents Is Fair Rate for Gas Here.

Made Investigation.

Four Cities in the State of Massachusetts Where the Same Conditions
Prevail Are Cited.

'In fixing 90 cents per thousand for Des Moines gas you appear to me to have dealt liberally with the gas company, not following the general downward trend of gas prices in an extreme or inconsiderate manner.'

The foregoing is an extract from a letter from Prof. William D. Marks of New York City, received by Mayor James R. Hanna yesterday afternoon. Prof. Marks who is recognized as one of the leading gas experts in the United States, came to Des Moines a short time ago to assist Mayor Hanna in bringing to an end the controversy between the city and the gas company over the 90 cent gas ordinance. Mayor Hanna submitted his proposition to the company and it was turned down. From the present outlook the difficulty will have to be settled by the courts.

Professor Marks further says in his letter: "I have not had an opportunity to appraise the Des Moines Gas works or to audit its books; whatever may be my opinion as to the proper price of eighteen candle power gas is based only on general knowledge of similar cases and therefore is necessarily not specific or based on exact knowledge of your locality.

'Four or five cities in Massachusetts averaging about the same population, 100,000, supplied by your gas company have voluntarily fixed an average price of about 91 cents actual receipts per thousand.

Lowell, Mass., has announced its intention of fixing the price of sixteen candle power gas at 75 cents. Minneapolis has gas at 85 cents to the citizens and a special rate of 65 cents for city use.'

Professor Marks states, in his opinion, the actual cost of gas in Des Moines should be between 82 and 89½ cents, including profit or dividends on liberal investment at 7½ per cent."

COMPLAINANT'S EXHIBIT 76.

J. P. B.

"Gas Experts Cost Money. Prof. Marks Sends Bill for \$50 per Day While in the City.

Prof. William D. Marks of New York City, retained by the City as its advisor in the controversy over the 90 cent gas ordinance, has sent his report to Mayor James R. Hanna. Accompanying the report was a bill for \$471.46. Of this amount \$350 is for professional services, the remaining \$121.46 being for traveling expenses. Prof. Marks was in Des Moines seven days, charging for his services at the rate of \$50 per day.

"I have not had an opportunity to appraise the Des Moines gas works or to audit its books," states Prof. Marks in his report. "Whatever may be my opinion as to the proper price of eighteen candle power gas is based only on general knowledge of similar cases and therefore is necessarily not specific or based on exact knowledge of your locality."

Prof. Marks states he believes Mayor Hanna has dealt liberally with the gas company in fixing the rate at 90 cents and by not following the general downward trend of gas prices in an extreme or inconsiderate manner."

4723 Redirect examination by Mr. BRENNAN:

Q. I show you Complainant's Exhibit 74 and I will ask you if you can advise the Master how that communication turned up in the hands of the complainant, the Des Moines Gas Company?

Objected to on part of complainant as immaterial.

A. No, sir; I don't know.

Q. Did you authorize anyone to deliver to them a copy of it?

Objected to on part of complainant as immaterial.

A. No, sir.

Q. You do not know from what source the complainant company or its officers or agents secured the document marked Complainant's Exhibit 74?

Objected to on part of complainant as immaterial.

A. No, sir; I don't know.

Excused.

E. N. SHERMAN, being duly sworn on part of defendants, examined in chief by Hon. H. W. Byers, testified:

Q. Mr. Sherman, you are one of the employes of the Des Moines Gas Company?

A. Yes, sir.

Q. A book keeper?

A. Chief clerk.

4724 Q. You are acquainted with the books of the Des Moines Gas Company and the manner in which they are kept?

A. Yes, sir.

Q. On page 74 of the inventory, Exhibit 15, under generator house, building No. 7, the building is described as having been erected in 1902, and extended in an easterly direction in 1909. Now I wish you would trace out for me and the Master just where in the books of the Des Moines Gas Company the entry showing the payment for the construction of that building can be found; just state in a general way how the account is made up; I have been unable to find this in any way from any memorandum we have?

A. Do you want all the items?

Q. I don't want all the items, if you can tell us in a general way, and what finally went to Mr. Brereton.

A. I can tell you the amount that went to Mr. Brereton; I haven't traced out anything else.

Q. He was the contractor?

A. Yes, sir; he was the contractor.

Q. Well, then that part of it?

A. We paid him on account of the generator house \$4,000.00.

Q. Now that does not appear anywhere in the books in just that form, does it?

A. No, sir.

Q. So that to find that, what that money was paid for, it would be necessary to go through all the vouchers in detail?

A. Yes, sir.

Q. But it is carried in the general totals in the extension and improvement account?

A. Yes, sir.

Q. So that a report made up from the books of the Des
4725 Moines Gas Company would include the cost of the building, but it would not appear as a separate item under buildings?

A. No, sir; not in any one place.

Q. Now you did find, however, that item of \$4,000 appears on the books under several different heads, but is finally all charged into extensions and improvements?

A. Yes, sir.

Q. Now there is another one I want to inquire about in the same way and that is the meter house. Mr. Brereton built both of these as I understand it?

A. I think so.

Q. On page 116 of the inventory, Exhibit 15, under meter house building No. 14, building erected in the year 1909, under contract as I remembered it, by Mr. Brereton, can you tell us just how that item was carried into the books of the Des Moines Gas Company?

A. I can't show it in one or two items.

Q. It was carried in in the same way that the other was?

A. Yes.

Q. How much was paid Mr. Brereton?

A. \$1,385.

Q. That \$1,385 covered the cost of the building under Mr. Brereton's contract?

A. As far as I can tell you that is all that was paid him. I don't know whether he furnished all the material or we; that is all we paid him.

Q. Well, he did furnish everything?

A. I couldn't tell you.

Q. You don't know about that?

A. I don't know.

4726 Q. Now that building or extension won't show on the books anywhere as a separate item, so much for meter house; if they were to look through the book to find the building itself, they wouldn't find any such item?

A. They are all designated on the original books but not on the ledger.

Q. But finally the cost of such construction all goes into the account that you do carry, called extensions and improvements?

A. Station meter account, extension and improvement account.

Q. Is that true of apparatus as well as buildings, that it is finally just carried into the account of extensions and improvements and not carried separately as to each item?

A. I would have to look that up and see.

Q. But you know that is true as to the buildings?

A. Yes, sir.

Q. Now there is a pump house, for instance on page 112, the building was remodeled in 1909 and built in 1907, building No. 13. Now how can we find out from the books if we want to refer to the books that have been introduced here in evidence, just what that building cost?

A. You would have to make an analysis of the account; you can't do it in any other way.

Q. We would have to run clear back to the vouchers?

A. There are several sub-accounts.

Q. But they all appear somewhere in the ledger and journal?

A. Oh, yes.

Q. It would either be carried into account payable or extensions and improvements, or repairs, would it?

A. Yes, sir; but I couldn't say which one without going into it.

Q. I do not ask you to do that. Our witnesses had some difficulty to trace out these items and I wanted to see if I could find out why it was they could not be found in the books. Now building No. 16, page 126 of the inventory, built in 1906, the boiler house, what do you have to say as to whether that could be found in the same way as the Brereton buildings?

A. I would be unable to answer anything definitely without looking it up.

Q. Just turn to the extension and improvement account there in 1906 in the ledger and see what it is?

A. I haven't the right ledger here.

Q. We will have to look that up anyway and we will pass that for the present.

Excused.

JANSEN HAINES, re-called for further direct examination, examined by Mr. Byers, testified:

Q. In the inventory, Mr. Haines, there is a set of five benches of sixes, coal gas, 300,000 feet capacity, was there more than one of those sets?

A. Your question is a little confusing.

Q. Did you have more than one such set?

A. There were five benches of six retorts each in a set; that is the term we use—14 inch by 23 inch by 9 feet, capacity 300,000 cubic feet daily installed in 1900.

Q. Is that correct, that date, installed in 1900?

A. I can't answer that, because they were installed before I came here.

4728 Q. It is the same set that has always been there?

A. This inventory refers to the same set that is there now?

Q. It is the same that was there before you came?

A. With the exception, when I came here there were six benches of sixes; one was removed.

Q. That was the same set that was there in 1895?

A. They were probably rebuilt during that period, but not during my time here.

Q. How long has it been since the company has been making coal gas?

A. I think I testified to that, the benches were shut down two months after I came here in 1903 and have not been operated since.

Q. Were they new at that time?

A. Oh, no.

Q. They were the ones that had been there a long time?

A. They had been there prior to my coming here. But the coal gas benches have to be renewed every two years.

The MASTER: They are the coal gas benches, etc., referred to by the engineers as obsolete?

Mr. BYERS: What I want to get at, we have figured in a set of these in the inventory of 1894 and 1895 and it is our notion this is the same thing.

A. I couldn't say as to that. I can't say of my own knowledge, but I should say in that period they must have been rebuilt. I do not think those coal benches would last that long.

Q. Of course the books would show if they were rebuilt?

A. Yes.

Q. Where would the charge appear in repairs or construction?

A. I would have to look that up.

4729 Q. We are in the situation where we think that is the same set and they were not rebuilt and whatever has been done was charged into repairs, and we are going to take that position.

I wish you would look it up so we can have it straightened out. Now about these buildings; how long would it take for your book keeper to make for us a statement showing the amount of money paid for the construction of these buildings that have been put up down there since you came here, in 1904? Our men have been unable to trace out the buildings themselves on account of the manner in which the

books were kept. They get the items, but they do not show whether it was buildings or what it was. For instance, take your station meter, instead of calling it meter house, it is run together, the cost of the meter and the cost of the construction of the building, and we have been unable to separate them.

A. I don't know that he could make an absolute separation of them.

Q. Just this morning I called Mr. Sherman's and Curran's attention to this matter, one was a meter house and one a generator house, built by Mr. Brereton. Now the books show \$4,000 was paid Mr. Brereton, covering the entire cost of the building and material did it not?

A. I couldn't answer off-hand without going to the books. Of course I didn't make those charges.

Q. I have asked you a dozen times, I guess, that was exactly the amount of his contract, wasn't it?

A. It was paid in accordance with the amount that he agreed to.

Q. Now the other item does not quite agree with his contract price; that is the extension of the meter house. The boys gave me that as \$1,385 this morning. My recollection is the contract was \$1,527.00.

A. I don't recall, General.

Q. Anyhow he furnished the material, didn't he?

4730 A. He furnished the material.

Q. And the labor?

A. Of course that may not include the cost of the house; there are things charged to the house that may not be included in his work.

Q. What would things likely be?

A. I would prefer to look that up.

Q. We are going to stand on the two items of \$4,000 and \$1,385. If you want to make any correction, we would be glad to have you do it, but make it before the case is argued, because we expect to use these two sums.

If you will make a memorandum now I will give you what I would like to have your men figure out for us, and let the memoranda show just how we can find it: First, the oil tank No. 21. It is stated it was erected in 1902, 100,000 gallon capacity, and it is found on page 143 of the inventory.

And these five benches of sixes, 300,000 feet capacity. I would like to have a statement as to what the book cost of these were, and I want the books to show whether they were actually set and whether the item was charged to construction or repairs.

Now the building designated in the inventory as Complainant's Exhibit 15, building No. 6-a-b on page 59 of the inventory. I want the same thing as to that, that the boys gave me in respect to the meter house and generator house, the book cost of the building and additions that have been made to it as covered by the inventory there, and how we can trace it, if at all.

Now the boiler house extension on page 68 of the inventory and the building No. 8-a coal shed, on page 84 of the inventory. Building No. 13, on page 112, the oil pump house, built in 1907,

and remodeled in 1909. I want the book cost and the manner
4731 in which it is charged in the books, and the remodeling in
1909, what that cost, and where it is charged.

Building No. 15, page 121 of the inventory; in three divisions A,
B and C; I would like to have the book cost of that, the account to
which it is charged and the additions and the accounts to which they
are charged.

Now Building No. 16, page 126 of the inventory; I want the same
information about it as I have asked for the others.

Excused.

At this time an adjournment was taken until 1:30 P. M.

4732

1:30 P. M., THURSDAY, October 5, 1911.

EDWARD W. BEMIS, being recalled on the part of the defendants,
and examined in chief by Hon. H. W. Byers, testified as follows:

Q. *Where* you were on the *state* before Mr. Guernsey asked you
to check up a certain statement that he furnished you and also to
check up one of your own. Have you complied with his request?

A. Yes, sir.

Q. And have you the tabulation with you that shows the check-
ing and corrections if any?

A. Yes, sir.

Q. In both papers?

A. Yes.

Q. You may take the one Mr. Guernsey furnished you first and
state as briefly as you can just what errors you find in it?

A. First, there were some minor errors that I do not consider
important in the matter of sales and miles of main which were due
merely to the fact that when it was over one half of a point in a
decimal in some cases they took the next higher and in other cases
did not, to be consistent I think they should. That did not
amount to much. Then the number of meters for Cambridge, a
slight error, 26,590 given and the report gives 26,560, that is a
difference of thirty meters, that is not important. The next place
the second line of criticism relates to current assets. I have written
here my criticism of that, after I had written it it occurred to me
that perhaps the criticism should be directed to the use of the word
current assets, that I thought first the trouble was in another direc-
tion. If they had said other assets my criticism would still
4733 hold, but no- so fully. For example in Cambridge they in-
clude in current assets certain investments as I believe out-
side of the gas business of \$30,631.54 and for new work in process
of construction \$4,776.88. The latter is more in the nature of
permanent than current assets. If they are going to use the word
other assets, that new construction should be in. But I say the out-
side investment should not be in in either case. With regard to
Lawrence, the office building including \$50,118.10 which would
not ordinarily be called current assets, if they mean other assets it
would be. There were small outside investments, don't amount to

anything, \$98.10. Then as to Lawrence I show how I reached my figures of current assets which I will not need to go through.

Q. This memoranda which you produce here will furnish to Mr. Guernsey a complete answer to his suggestions as you check it up.

A. On page- 5 and 6 I would like to call attention to a point or two in regard to meters and services. Complainant's exhibit 65 was made up on the theory of unit cost of meters, services, mains and the Massachusetts assets and Marks' figures that he used were his figures of unit costs new. In applying these unit costs to Des Moines he depreciated the meters one third and services one half, mains not at all. If a similar depreciation were made with regard to the application to these Massachusetts plants it would change Exhibit 65 \$1,610,043.00. The- as to real estate they left the real estate as it was in the Massachusetts assets. These assets of real estate averaged \$548,000 a plant in Massachusetts. If they were applied to the Des Moines situation I think we should take either

\$100,000 or \$200,000 as the average per plant. Then I 4734 have tabulated on what the result would be with these changes and it reduces the total by over \$5,000,000. After these reductions are made from the total assets of \$17,000,000 given in Exhibit 65 there remains only twelve million odd dollars of total assets or only \$3.08 per thousand feet of sales instead of \$4.46 as given in the company's exhibit. Even if for comparative purposes the land in each of the Massachusetts — be accepted at \$200,000 claimed by the company in Des Moines the average would only be increased by 17 cents making \$3.25. If all new work may have been classed as current assets and have been included, the difference would be only \$462,761.90 or another 12 cents per thousand feet making \$3.37 as compared with \$4.46. Mr. Guernsey asked me to look over his figures and I would make these changes in any criticism of it.

Q. The paper you have handed me which the reporter has marked defendant's exhibit No. 74 contains your analysis and correction of the figures and tabulations that Mr. Guernsey asked you to check up on complainant's exhibit 65.

A. Yes.

Q. Now your own tabulation that he asked you to take up. You were asked to check up the tabulation on page 92 of this exhibit 43. Have you done that?

A. Yes.

Q. Will you state what corrections and changes if any you have made in response to that request?

A. These are the corrected figures. Some of the errors found were favorable to the company and some to the city, but one of the two points involved in the whole page to-wit, profits per thousand feet of sales of Massachusetts companies as now found are slightly more favorable to the city than the original figures 4735 which were compiled in great haste merely for illustration.

The other point the margin between the holder cost and the price was found to be a little more favorable to the company. The corrected table I give here. The two points that are involved are

profit from operation—this is for five years' grouping seven companies for the whole five years—profit over operation in Massachusetts being 27.1 cents and excess price above manufacturing cost being 53.79.

Q. The corrected page has been marked by the reporter defendant's Exhibit No. 75. In your cross examination Mr. Guernsey in referring to the overhead charges allowed by the Wisconsin Commission asked you if you did not know that the commission had changed their allowance from 12 to 18 per cent. I wish you would state what the fact is about that now if you know and have ascertained.

Objected to as secondary and not the best evidence, incompetent on that account.

A. I had at the time of my testimony in my room at the hotel a letter which I referred to in answering Mr. Guernsey and I now have it with me. It is a letter from Mr. Edwin Gruhl present acting statistician for the Commission, the position previously held by Mr. Hagenbaugh as I understand it.

Q. What was the date of it?

A. August 18th 1911.

Q. What information, if any, did you get from that with respect to the matter that Mr. Guernsey asked you if you did not know about?

Same objection.

A. The statement is a sentence which I will read from the 4736 letter: "As regards overhead changes the commission originally allowed ten per cent for overhead charges, but within the last year and a half has increased this to 12 per cent especially in cases where the total appraisal item was unusually large. It has never exceeded 12 per cent."

Q. And what is the date of the letter?

Same objection.

A. August 16, 1911.

Q. You were also interrogated at considerable length about your allowance of .54 for claims and damages. Have you anything further to say about that?

A. Yes, sir. The damages and claims including legal expenses as reported by the Brooklyn Union—

Objected to as secondary, not the best evidence and incompetent.

A. (continued). — for the year 1908 as stated in the last published report of the public service commission of the first district which is Greater New York—

Q. Do you know what year that publication was?

A. It came out this spring, but it is dated 1909, and covers the statistics of 1908 for the consolidated gas .16 of a cent and for Brooklyn Union .10 of a cent. I have also in the entire state of

Wisconsin for the year ending June 30, 1909, shown in their last report of statistics.

Q. Published when?

A. That was published early this year.

Q. And what is the allowance?

A. It shows that the entire expenditure of all of the companies of Wisconsin for injuries and damages, insurance and law expense was .95 of a cent per thousand feet of sales. Comparing 4737 that with the Des Moines record where in my exhibit I allowed .54 of a cent for claims and took the record as shown for an average of five years, for law expense .12 of a cent and insurance part of which was for liability although I don't know how if it were all, of course it is not all for liability making 1.1 and without any insurance it was .66 of a cent for claims legal and some portion of the insurance might be added making it very much like the .95 of a cent in Wisconsin for all of the companies of the state.

Q. What do you have to say now with respect to your allowance?

Mr. GUERNSEY: Wait a minute before we get to that, I want to move to strike out all of the testimony of the witness as to the conclusions which he claims to have reached and matters which he claims to have taken from the reports of the New York Commission and reports of the Wisconsin Commission as secondarily and incompetent.

A. I have *went* over the tabulation. The only companies I was able to reach directly were in certified copies which I had for the last year ending June 30, 1910, for Boston, Lawrence, Lowell, Lynn, and Fall River and they show that the entire expense of these companies for liability insurance, claims and legal expense was .58 of a cent per thousand feet of sales. My report gave .54 of a cent for claims on the experience of the last five years for legal expenses .12 making .66 of a cent without any reference to how much might from the insurance be put into that for the liability insurance.

Complainant -oves to strike the ans-er of the witness for the reasons urged against the last preceding answer, also as argumentative.

Q. What do you have to say now Professor, resting your 4738 judgment upon the information that you had at the time that you prepared your report and upon your experience in cases of this kind and the information that you have since obtained in the way that you have described you have obtained it, as to the reasonableness of the allo-ance that you made in your report for claims and damages as applied to the Des Moines Gas Company?

Objected to because the factors which the witness is asked to weigh are not the proper factors for the basis of an expert opinion which must be based upon experience, the question amounting to simply asking the witness to draw a conclusion from such partial information as he may have picked up about other companies and not asking him to state any expert opinion or any matter of fact.

A. All the information I have gathered since confirms the position I took in my report.

Q. I don't want it that way. I just want a plain answer as to the reasonableness of the allowance you made resting your judgment now upon your experience and upon the information that you have since gathered and in the way you gathered it.

Same objections.

A. I believe my figures were reasonable.

Q. You were asked about uncollectible bills. Anything further about that you *sace* to say?

A. Yes.

Q. Will you tell us.

A. At the time I testified I said I had at hand only data of the consolidated gas for 1905. I have since secured the same companies report for 1908 and also the Brooklyn Union for 1908. Those two companies have no penalty.

4739 Complainant objects to any testimony as to the contents of these reports as not matter of expert opinion as secondary and hearsay and further as not matter which could afford the basis of an expert opinion and could only be the basis of argument.

Q. Have you those reports here in Des Moines?

A. Yes.

Q. Well you may state what you have to say if anything now with respect to the allowance, if any, for uncollectible bills?

Same objection.

A. The allowance was reasonable.

Q. Now distribution and general expense and operations you were asked about all of these things. Have you made any further investigation with respect to the matter about which you testified in chief and on cross examination on these subjects?

A. Yes, sir.

Q. And have you reduced your conclusions to writing and tabulation and computation?

A. Yes, sir.

Q. I wish you would let me have whatever you have. Is the tabulation the reporter has now marked defendant's exhibit No. 76 the matter you have just referred to?

A. Yes, sir.

Q. Is there anything about Exhibit No. 76 that is not self explanatory?

A. I think not. The important point in the first page relates to the margin between manufacturing leakage and taxes on the one hand and prices on the other showing how much greater it is here than in the Massachusetts companies, but I have excluded as not comparable the manufacturing leakage and taxes, they happen to be nearly a-like, but it would not make any difference whether they were or not as the point of comparison relates to expenses and operations not directly connected with candle power the price of coal or oil or residuals. And the next page covers a com-

4740

parison between the only purely water gas plant of the seven large companies of Massachusetts and the Des Moines company.

Q. That is confined to that single plant at Fall River.

A. Yes, and this relates to manufacturing expense. There again the important point is the expense aside from coal, oil and residuals which of course are liable to vary with local conditions.

Mr. BEYERS: Defendants at this time offer- and read- in evidence defendant's exhibits 74, 75, and 76.

Mr. GUERNSEY: Complainant objects to the portions of Exhibits 74 which do not relate to checking complainant's exhibit 65, but are arguments against the basis adopted in that exhibit as argumentative and incompetent on that account. As to Exhibit 75 we will interpose only the objections that were made to the report one page of which this exhibit purports to correct. The complainant objects to exhibit 76 as clearly incompetent, because merely a matter of argument, predicated upon a comparison of certain alleged conditions in Massachusetts with alleged conditions in Des Moines.

Cross-examination by N. T. GUERNSEY, Esq.:

Q. Just a word about damages and claims. Your .54 of a cent, you added to that .12 of a cent on account of legal expenses?

A. Yes.

Q. You assumed then that that legal expense was entirely on account of claims?

4741 A. No.

Q. Did you investigate to see?

A. No. I did not make the assumption either.

Q. You don't know then what proportion of that legal expense was on account of claims, on account of loss and damage and personal injury claims or things like that?

Q. So you don't know what proportion of it if any should be added to your .54 of a cent for the purpose of making comparisons which you have just been making?

A. No. In all these comparisons that is in one set of comparisons, not all, I added legal to the claims both in Des Moines and the other companies whatever the legal was.

Q. I don't want to ask you anything about these other companies. You also referred to insurance in the Des Moines company you said as to that part of it was doubtless for liability insurance.

A. Yes, I didn't say certain, positively.

Q. Have you investigated that matter at all?

A. No.

Q. So that you just assumed that for the benefit of your argument.

A. I assumed that it might be as a little of it was in the other companies.

Q. But you have absolutely no information on that subject?

A. No.

Q. Just assumed that for the benefit of your argument?

A. It didn't benefit my argument to assume it if I treated the other companies on the same basis.

Q. Now did your allowance for uncollectible bills compare with the average amount which the losses show the company has incurred on that account by its actual experience?

4742 A. In Des Moines?

Q. Yes.

A. I took .64 of a cent for the last five years experience in my report and used that.

Q. So that what you testify to now is that an allowance predicated upon a condition where there was a penalty if there was not prompt payment is a fair allowance where there is no such penalty imposed. In other words that that will not affect that question, that is the result of your testimony isn't it?

A. Well put in just that way to answer yes or no would not be quite fair to me.

Q. All right. Now come to your Exhibit 74, you were asked were you not as complainant's Exhibit 65 to check this and see whether it was accurate?

A. Yes, sir.

Q. And the inaccuracy you found were some differences in sales and miles of mains due to disregarded fractions?

A. I call those minor errors.

Q. I didn't ask you that. I said you found some errors of that kind?

A. Yes.

Q. Then you found an error of thirty meters at Cambridge?

A. Yes.

Q. And you found what would be a mistake if you changed the obvious definition of current assets that was taken in making up Exhibit 65?

A. Some of my corrections—

Q. Now, just limit yourself to the question.

A. I can't answer it directly.

Q. All right just say so.

A. Yes or no will not answer the question.

4743 Q. I didn't criticise you for saying you can't answer, that that suits me entirely. Now by looking at the reports in connection with complainant's exhibit 65 it was perfectly obvious was it not what the complainant had included in Exhibit 65 in using current assets by checking out the figures?

A. I concluded so after I had tabulated the results.

Q. It was entirely obvious what the complainant had included?

A. What they must have included, yes.

Q. And taking current assets as meaning what the complainant obviously had intended to include, you found that they were accurately concluded here?

A. I can't say that I checked them all up, I found such an obvious error in the use even of the word other assets, that I did not check Lawrence complete to see whether I could by any way reach your figures or not.

Complainant moves to strike the answer as not responsive.

Q. Now see if you can't answer my question. Taking current assets in the sense in which the complainant had obviously used it, in comparing this exhibit 65, so far as your checking went you found that Exhibit 65 was correct except these items did you not?

A. No, I can't answer that yes or no directly.

Q. You can't say?

A. I can explain what I mean.

Q. You can't say that taking these current assets in the sense in which you have said it was obviously used here—

A. No, you misunderstood when I consented to that.

Q. Didn't you say a few moments ago taking this exhibit 65 with the report it was entirely clear that it was intended to include what it did include, that they had included in it?

A. No.

4744 Q. Didn't you as a matter of fact check up the figures to see whether that was a correct construction to put on current assets here? *

A. Current assets I first thought meant what is ordinarily meant by current assets. Then I thought they meant and still thought today that they meant other gas assets. If you are going to use all other assets whether gas or not, if that is what you mean, then so far as I went it checked, but I didn't carry it through with checking on that basis.

Q. I didn't ask you that. I want you to state now and answer the question please whether when you came to compare these figures here at Cambridge for instance which is first and you found the total there of \$2,382,171.45 made up of four items which appear in the report and then find the item current assets and then the total finally as given in the report, do you mean to tell us that you did not understand that the words, current assets were used to designate assets than those that were designated in the first five items there?

A. Yes, and I thought that was a mistake.

Q. You didn't understand it was so used?

A. I did after awhile. I didn't when I made out my report and I don't yet believe you did the think correctly on your theory.

Q. I didn't ask you whether we did it correctly or not. Now you find do you not if you look at the report for 1910 that the total assets given for Cambridge are \$2,267,036.07 as they appear in complainant's exhibit 65.

A. Yes.

Q. You found the first five items which are items in this Exhibit 65 are the same as the first five items which are itemized in this report?

4745 A. Yes, if I understand your question.

Q. You found that the amount here given as current assets is the difference between the sum of these five items and the total as given in the report didn't you?

A. Yes.

Q. Now did you not after you had found that understand it was intended to include the difference between these five items and the aggregate?

A. I did except regarding Lawrence and Lynn companies where electricity was mixed in with it. At least Lawrence where I checked it out I didn't reach your figures at all.

Q. Of course you could not tell whether you reached our figures or not at Lawrence unless you knew what we were driving at could you?

Q. Well I have to assume you mean other gas assets when you say other assets.

Mr. GUERNSEY: I move to strike the answer as not responsive and would like to have the question read to the witness.

Q. (Question read).

A. No, all I could judge is what you said or wrote.

Q. Will you turn to page 60 of your report. Now I will read you from complainant's exhibit 65 the total amount of the assets which you say you understood were gas assets and I wish you would check it with the amount which you give on page 60 of your report as the amount of gas assets of Lawrence as shown by the Massachusetts report for 1910 and see whether it agrees as the amount given as total assets at Lawrence, \$2,032,593. Does that check with what you give at page 60 of your report?

A. Yes.

Q. As its gas assets. Now did that include a large amount 4746 of electric assets?

A. I don't remember now.

Q. Didn't you just say a few moments ago that the error that was made in Lawrence was including a large amount of electric assets?

A. You will find that referred to in here.

Q. Didn't you state a few moments ago that the error that was made in complainant's exhibit 65 as to Lawrence, the serious error was we had included a lot of electric assets in addition to the gas assets?

A. I thought you had.

Q. Didn't you say so a few moments ago?

A. Yes, the record shows I suppose I did.

Q. Do you still say you are right about that?

A. I can't tell without I go over your figures and check them up.

Q. Haven't you any faith in your own figures, page 60 in your report?

A. That was a total of everything that they gave as assets if I remember right.

Q. Did you on page 60 put in as assets for Lawrence in its gas business assets which it was using in its electric light business?

A. I don't recall, I know I put in permanent investments, it don't follow either that is all I add they were not all gas assets, I discovered that.

Q. Do you still say we were wrong in this Exhibit 65 in including in our assets at Lawrence assets that did not pertain to the gas business?

A. You were wrong if you differed from my figures on that but I don't know just what your figures show.

4747 Q. I would like to have a definite answer.

A. I can't answer it without computation based on that basis.

Q. Turn to Lawrence and let's see.

A. The figures are all copied on pages 2 and 3 of my report.

Q. I am working on Exhibit 65. Turn to Lawrence. My first item Lawrence here is real estate \$209,209.71. Please state whether you find that in the report of the Lawrence Gas Company for 1910 the Massachusetts reports with the word "gas" after it in parenthesis?

A. Yes.

Q. So we are correct so far are we?

A. Why yes.

Q. Now let's take the next item. The next item on complainant's exhibit 65 is \$308,367.86, machinery and manufacturing appliances. I wish you would check that with the report you have in your hand and tell us whether that checks with the item there and whether the word gas is after that?

A. That is right.

Q. We are right so far. Mains and services \$621,416.21.

A. Yes.

Q. Does that check?

A. Yes.

Q. That is gas is it?

A. Yes.

Q. The next item at Lawrence \$144,087.96. Does that check, that is meters, does that check with the report?

A. As here, I have not your report before me.

Q. You have the Massachusetts report?

A. Yes.

Q. That is what I want to check with.

4748 A. Yes.

Q. So as to those four items that there are there we check with the report and we are correct?

A. Oh yes.

Q. How did you get your total of \$2,032,503 as the total amount of investment in gas in Lawrence?

A. I don't remember now. You will find how I got it in this report from pages two and four.

Q. You don't get it at pages two and four do you on Exhibit 74, you get it page 60 of exhibit 43 don't you?

A. By using my figures pages two and four this exhibit you will get my computation here gas assets.

Q. That don't answer my question. Let me see if I can't help you a little. I notice here an item of \$63,967.70 as cash on hand. Where does that appear in your page 2 as to the Lawrence Company?

A. It appears in connection with the tabulation on page 4. You see I took certain assets I could recognize as gas assets and others I could recognize as electric, found what proportion one was to the other and applied that on page 4 to the other assets which included the cash on hand and notes receivable, insurance office furniture, sundry accounts due the company.

Q. The result is that by just as much as your exhibit 74 disagrees with Exhibit 65 it disagrees with your figures on page 60 of Exhibit 43 does it not?

A. I don't know.

Q. Isn't that an inevitable inference from the fact that we have the same total on complainant's exhibit 65 \$2,032,593 for Lawrence investment as you have on page 60 of Exhibit 43 for the same thing?

A. Can I look at your Exhibit a minute?

4749 Q. Certainly.

A. There is a difference between the way I work this with this complete analysis and that of about \$30,000 in a little over two million. I mean in Exhibit 74 giving the company at Lawrence about \$30,000 more gas assets than it was entitled to.

Q. (Question read.)

A. If I understand the question I would say yes.

Q. What is the total amount of gas assets at Lawrence which you give on defendant's exhibit 74 and which you say varies only \$30,000- from your figures given at page 60 on your Exhibit 43, and which you say varies with our figures about \$500,000?

A. Well I was using current assets in a sense you used the term, that I thought you used it.

Q. Please answer my question, what is the total amount of gas assets at Lawrence shown on your Exhibit 74 which you said a few moments ago varied but \$30,000 from the amount of these shown on page 60 of Exhibit 43.

A. \$2,003,861.11.

Q. That is the amount of gas assets shown at Lawrence by your exhibit 74 is it?

A. Yes.

Q. Where does that appear?

A. On page 2 at the bottom of the page the \$1,893,945.44 of recognizable gas assets, adding to that the apportioned assets on page 4 of \$109,916.67 that makes a total of \$2,003,862.11.

Q. And you state that our figure of current assets at Lawrence which is obtained by deducting the five items we have referred to which are there lumped as four from \$2,032,593 is shown by your Exhibit 74, did you not to be nearly \$500,000 too large?

A. I understood your use of the word current assets—

4750 Q. Please answer the question.

(Question read.)

A. Yes.

Q. Now then upon your present statement of what Exhibit 74

shows as the gas assets at Lawrence, what should your figure on page 1 of Exhibit 74 opposite Lawrence \$262,695.46 be?

A. The other assets would then be \$720,680.48.

Q. Now is that right or isn't it?

A. I believe it is.

Q. Then give me that again so I can put it in here on 74 instead of \$262,000?

A. You have to change your word also from current assets to other \$720,680.48.

Q. How does that difference of \$30,000 between us arise?

A. I can show the full statement of how I got it now as on page-2, 3 and 4.

Q. Lowell is another one where you make a big difference there. I wish you would compare the total gas assets as given by complainant's Exhibit 65 at Lowell *aiwht* the gas assets given at Lowell at peg- 60 of your report, Exhibit 43. While you are looking at that page just check each one of these, you will find I think that the total assets checks in each instance on page 60 of your report, check all of them and let's see while we are at that page and we will have that out of the way.

A. They all check.

Q. So that we have not any electric assets in any one of them unless you also had them in at page 60 in Exhibit 43?

A. Yes, the real explanation as I stated to you the latter part of the testimony and report was through them using current assets and putting in as I had **general investment**.

Q. No, but you are getting away from the question. I was 4751 not talking about that. I was talking about your claim a little while ago we had claimed a lot of electric assets?

A. Well I thought you had at the time.

Q. It turns out you are mistaken doesn't it?

A. Yes.

Q. Now then to go back, in each oje of these companies we have the same amount of gas assets that you had and in none of them is there any error in these first five items as shown by the report of the Massachusetts commission is there?

A. Only that possibly—I don't remember whether that includes any of these little minor errors, if so they don't amount to anything.

Q. Might be a difference of fractions or something like that?

A. Yes.

Q. So if there is any error in these current assets in the sense in which we have used it in this complainant's exhibit 65, it is an error in subtraction or addition?

A. Yes.

Q. A mere error in computation, in other words?

A. That is right.

Q. The rest of your exhibit 74 is not devoted to checking this Exhibit 65 is it?

A. No.

Q. But it is an endeavor to meet the argument by stating different basis that might be adopted in making up the figures.

A. That ought to be adopted, yes.

Q. That in your judgment ought to be adopted?

A. Yes.

Q. In making up the figures.

4752 A. Yes.

Q. And of course that is a mere matter of argument because you didn't understand Exhibit 65 was made up on such basis as you suggest here did you?

A. I thought it was intended——

Q. Don't tell me what was intended, did you understand it was made up on the basis you suggest here in Exhibit 74?

A. I can't answer that exactly, I don't know just what you did intend to show.

Q. This defendants' exhibit 75 was made up by whom?

A. All of this I made up myself.

Q. This is not made up in the same way in which page 92 of Exhibit 43 was made up is it?

A. I never have looked up my original figures on that.

Q. How did you make up defendants' exhibit 75 then?

A. I took all the items of the company's statement in the profit and loss account, manufacturing account, added them up and checked them, they all balanced to a cent. There was one error in one of the Massachusetts figures, a few dollars, a figure 8 where it should have been one I discovered.

Q. You didn't attempt then to reconcile page 92 with the reports?

A. No.

Q. You just abandoned that?

A. Yes. Did the work all over again.

Q. Now take your depreciation, there is a transposition of figures there, should not that be \$554,472.78 instead of \$545,472.78?

A. If so, it was done in typewriting. I had it right when I handed it in.

Q. How can we find out?

A. Well I have my original figures probably in my grip here, I will look and see. The depreciation in my original table is
4753 \$545,472.78.

Q. We have the figures here, have you the figures by years so we can check that? We have the first year, \$164,414.54.

A. I have \$154,414.54. I know how that came about. In one of the cities where depreciation was given as \$20,000 one year on the plant, that was if I recall right a case of gas and electric and I took half of it as gas and half of it as electric on that that is depreciated one half of the \$20,000 item?

Q. Which city was it do you know?

A. Cambridge had \$20,000 that year and Lawrence \$20,000.

Q. Do you know which it was?

A. No, these figures farther back I have not with me.

Q. Cambridge has no electric?

A. No.

Q. So it must be Lawrence?

A. I should think so.

Q. There was no way of knowing so far as you know how much of that was charged to one and how much the other?

A. No, in my judgment I simply took half.

Q. What was the relative investments?

A. There was a difference in favor—gas was rather larger, on the other hand depreciation is considered a little more rapid with electric.

Q. I asked you what the relative investments were?

A. I have forgotten now, I looked it up at the time. I believe gas was a little larger. I had to use some percentage and I believed half was about right.

Q. These items of depreciation that you take here in defendants' exhibit 75 are the same items we went over in detail in connection with your original examination?

4754 A. Yes.

Q. So it is unnecessary to go over them again. How did you get your profits from operation here?

A. By adding the figure given, I will take an illustration here if you wish take the last report and turn to Cambridge as the first city in the list, the balance to profit and loss was what I took in every case. There were some small profits afterwards in the profit and loss account which I separately estimated there. They aggregated for all the companies for all the years, I think I have that figure before me \$37,613.63. That is the income from other sources that I refer to now, income from other sources that aggregates \$37,613.00.

Q. Did you deduct that from the profits or not?

A. No, that was added to the profits and these other items of income I ignored as I was quite confident that they did not come from the operation of gas works.

Q. You took the entire balance to profit and loss each time and put it into your profits from operation?

A. That is right, that is the way I got that and then I checked it by adding all those other columns.

Q. And that included anything from all sources of course?

A. Not from other sources.

Q. How can your aggregate balance of your profit and loss account fail to include all items of income?

A. This was only balance from operation, had nothing to do with any profits from other sources.

Q. Take Cambridge for instance, and the balance there is \$191,111.21.

A. Yes, that is what I took.

Q. That you are confident includes nothing but profits from the sale of gas.

A. I so interpreted it, I so believed it.

4755 Q. Where did you get what you call price?

A. By adding all the items called income from sale of gas such as in Cambridge that last year \$588,574.89, that is an illustration. Added all such items for all seven companies for all five years and divided it by the sales in feet.

Q. Are these the same seven companies you referred to originally in Exhibit 43?

A. Yes.

Q. That price does not check exactly with our figures.

A. I can give it to you by years if you want to, I haven't further detail with me.

Q. Give it to us by years if you will?

A. 1906, \$2,673,990.37. 1907, \$2,890,958.65. 1908, \$3,064,173.68. 1909, \$3,161,688.94. 1910, \$3,398,280.99. Total, \$15,189,092.63. All these check to a penny, I checked them all up.

Q. We have done the same thing and we don't agree on any year so I would like to go a little more into detail into the basis and see if I can find out what the difference is. Take Cambridge again will you in 1910, and let me know just what items you took.

A. What is known as income from sale of gas.

Q. What page?

A. Given here in Roman letters as XXIX. Income from sale of gas.

Q. You went the same way through these other companies?

A. Yes.

Q. One thing I don't understand on defendant's exhibit 76 on the last line of the page you have average 2,292,034,290 which is identical with the total immediately above it. That is the average of what?

A. It is only one company and at the right is seven companies so I had to divide the total of seven by seven to get the average for one and of course divided by one in the other case. I put it in merely for symmetry as it were.

Q. There was one thing I do want to ask you here. None of these Massachusetts companies furnish gas of the same candle power as the Des Moines company furnishes?

A. A little lower, two or three candles lower. Some of them more and some less.

Q. Which are less than two or three candles?

A. I have not looked it up particularly, I know they average seventeen to nineteen.

Q. Nineteen would be three candles lower?

A. Yes.

Q. Which ones are two or three?

A. They are all given in this report and I have not looked it up, the data in this particular as I exclude manufacturing cost from consideration. I will look it up if you wish me to.

Q. Turn to page 197 I think you will find it all there in one page.

A. Average candle power Cambridge, 18.28. Fall River, 20.44. Lawrence 18.20; Lowell, 18.31; Lynn 18.11; Springfield 16.52; Worcester, 18.38.

Q. Give us Boston while you are about it while you have the page there?

A. 18.10. This table I have read is tests by the state gas inspector.

Q. I wish you would look at Complainant's exhibit 77 which is a verified copy of the audit of the Boston company, turn over to the

last page and give us the total cost of gas to that company excluding interest, depreciation and reserves per thousand cubic feet sold, that is total operating cost?

4757 A. 49.14 cents.

Q. That was one of the companies that you refer to quite frequently in your testimony was it not?

A. Not in my table where I made comparisons of prices and costs.

Q. No, but quite frequently in your testimony and talked about 80 cent gas there?

A. I think I only referred to Boston once and that was in the matter or leakage.

Q. You just for the moment take 63.34 cents which Mr. Hall's report shows is the average for the last five years operating cost here and find out what the difference is between this 49.14 in Boston?

A. Subtracting the difference is 14.20.

Q. Boston is about 18 candle power against our 22, so that upon your testimony we would have to add three cents more on account of lower candle power wouldn't we?

A. This is how much did you say?

Q. Twenty two, about four candle power. That would be under your testimony three cents, wouldn't it?

A. Four candle power would be a little under three cents, say two and a half or two and three quarters.

Q. But didn't you testify three cents?

A. I don't recall it very distinctly?

Q. I recall it very distinctly.

A. It is a high estimate.

Q. Take three cents if you please, that gives up 17.20.

A. Yes.

Q. You would have to add that to the 80 cents in Boston to get conditions comparable to conditions here? That is would have to take into account these differences in our manufacturing

4758 costs and in candle power.

A. So many conditions are different in Boston I would not compare it, not attempt to.

Q. You would have to add that to your 80 cents in Boston to get something that would be comparable to conditions here. You would have to add the difference due to the difference in candle power and difference in operating cost including manufacture.

A. I cannot answer that for the moment. I am looking for the average price the average price in Boston to which you should add on your theory 17.20, it is not 80 cents at all, but a figure considerably lower because the average price in Boston on account of certain sales made to other companies at a much lower price 50 cents or less makes a great difference so the whole thing is out of comparison here. I am looking for that figure, but it is not in here.

Q. I don't think it is in there, and I don't think you would properly compare them, but I don't care to discuss that with you. If you add 17.20 to 80 cents you get 97.20.

A. Of course that is a mere matter of arithmetic.

Q. What I wish to illustrate is that it is not safe to make com-

parisons based on prices without taking these other things into account is it?

A. Of course not. I have not tried to.

Q. So the mere fact you may sell gas at \$1.15 in Omaha and 80 cents in Boston does not indicate one dollar or ninety cents here?

A. It is a starting point for the study and any conclusion you can get there.

Q. You must take these other factors into account and must have them all before you for comparison?

A. I believe you should have more than the question of 4759 price.

Mr. GUERNSEY: We off- this complainant's exhibit No. 77.

Objected to as immaterial, incompetent, no proper foundation laid for its introduction and not the best evidence.

Q. In connection with your cross examination your attention was called to certain places where you have testified that low rates would yield a more than fair return and you said on page 4354 in most of these places it has been proven by reductions since. And you said referring to the same matter on page 4355 I probably did as the gas experts always testify to the contrary and generally found to be wrong by subsequent results and on the same page I don't remember any companies nor in any case in which the experts on the other side were not found to be wrong by subsequent results. Of course I have not the reports of all these companies, but I presume you have or have kept track of them or else you would not have said that?

A. Yes, there are two or three where the courts are still holding up the reduction.

Q. What I want to know is whether these statements were based upon the reports of the profits of these companies under reduced rates?

A. Yes.

Q. Have you seen the last report of the consolidated company in New York?

A. Yes, that is the last report not to the stockholders, seen the last one printed by the public service commission.

Q. You know then do you not that the company's earnings from its gas business in 1910, were equivalent to only about 4.1 per cent on the property devoted to that business?

A. After allowing a fictitious amount of ten cents for contingencies which the supreme court *through* out.

Q. You are familiar with the report of the company?

4760 A. Yes. That is I have read it over. I don't remember much of it now. I remember that item was in it.

Q. You know that that is what the report shows the net earnings of that company were out of its gas business?

A. No, I don't remember the exact percentage, I remember the ten cent item but I don't remember the exact percentage of return.

Q. Let me call your attention to page 2, of the report submitted to the annual meeting January 2, 1911, to this language making the total earnings from the gas company's business for the year 1910,

\$3,046,448.56 equivalent to about 4.10 per cent on the value of the tangible and intangible property employed in the manufacture and distribution of the gas sold by the company. You had that in mind when you testified that the rates had resulted in demonstrating that you were right in your claim that they would afford more than a fair return?

A. I had in mind not this no, but their reports analyzed by the public service commission. This I had not seen in this form.

Q. Now then just a word about that ten cents that you say was kicked out by the court. My question referred to the earning for the year 1910. Now will you tell us just where the court kicked that out in the statement relating to these earnings?

A. It did not relate to 1910. It did I think in January 1908, when it made its decision regarding the reasonable price for gas it refused to consider that ten cent item.

Q. What court do you refer to?

A. First Judge Huff, affirmed later by the United States Supreme Court.

Q. We shall find what there is in support of this statement either in the opinion of Judge Huff reported in the Federal reporter or in the opinion of the Supreme Court of the United States?

4761 A. Yes sir.

Q. You have no knowledge as to how that item was treated in the statement of the earnings to which I called your attention have you?

A. I know it was included in their report to the commission, but this report I have never seen. I know nothing about this report.

Q. That ten cent item was to cover both depreciation and contingencies was it not?

A. Yes.

Witness excused.

4762 ANDREW SANGSTER recalled on the part of the defendant in chief by Hon. H. W. Byers, testified as follows:

Q. You were requested to furnish the details of the expenses of this law suit up to this time. Have you prepared that?

A. Yes, sir; prepared a detailed statement showing the items making up the total of \$47,131.16.

Q. In a general way what are the totals, just the summary?

A. The charges made by the United Gas Improvement Company and which were passed up to their credit in the ledger amount to \$11,714.54. The other accounts may be grouped under accounts payable. Those are — follows: United Gas Improvement Company \$140.10. Court costs, \$453.60. W. A. Baehr, \$8,180. Henry I. Lea, \$6,796. W. W. Randolph \$5,000. W. J. Hagenau, \$1,546. N. T. Guernsey, \$1,500. Hotel Chamberlain \$4,436.20. J. G. White & Company \$224.50. Store room and sundries \$15.70. General items which have not been classified under heads, \$7,124.52. Total accounts payable, \$35,416.62 which with the credit to the United Gas Improvement Company referred to amount to \$47,131.16.

Q. And that covers the items that you were inquired about yesterday?

A. Yes.

Q. And you have the details?

A. The details are shown on pages 1 to 10 of this statement.

Q. The statement that is marked by the reporter defendant's Exhibit 77 and consists of eleven sheets?

A. Yes, sir.

Mr. BYERS: Defendants offer- defendant's Exhibit No. 77 in evidence.

4763 Cross-examination by N. T. GUERNSEY, Esq.:

Q. This defendant's exhibit 77 contains only the expense to and including August 31, 1911, and nothing thereafter?

A. Nothing thereafter.

Witness excused.

Mr. BYERS: I am not absolutely sure, I have not checked up all these exhibits and there may have been some identified as we went along that have not been formally offered.

COURT: If you have overlooked any you can offer them at any time.

Mr. BYERS: We rest with that.

Defendants rest-.

4764 Friday Forenoon Session.

OCTOBER 6, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Complainant's Rebuttal.

ALBERT E. HOLLINGSWORTH, being first duly sworn on part of complainant, in rebuttal, examined in chief by W. L. Read, Esq., testified:

Q. Where is your residence?

A. 4322 Kingman Avenue, Des Moines.

Q. How long have you lived in Des Moines?

A. About thirty years.

Q. What is your business?

A. I am in the coal business.

Q. How long have you been in the coal business?

A. Twenty years.

Q. Are you in the retail or wholesale coal business?

A. Wholesale and mining.

Q. What is the name of the company with which you are connected?

A. Empire Coal Company.

Q. And its business is what?

A. Wholesaling.

Q. Where is the Company located—where is its principal place of business?

A. In Des Moines.

Q. How long has that Company been in operation and existence?

A. Since 1900.

4765 Q. Prior to that you were operating with other companies?

A. Yes, sir.

Q. And have been in the wholesale coal business and operating?

A. Yes, sir.

Q. Are you familiar in a general way with the range of prices of coal for the last ten or fifteen years?

A. I am.

Q. I wish to inquire, Mr. Hollingsworth, what has been the tendency in prices of coal, particularly steam coal, whether the tendency has been upward or downward during that period?

Objected to on part of defendants as being immaterial and not rebuttal, not the best evidence.

A. It has been very materially upward.

Q. Have you in mind any prices that would illustrate the matter? For instance, we go back five years; what was the range of prices then for steam coal?

Defendants interpose- the same objection last made.

A. \$1.20 minimum to \$1.25 maximum.

Q. Per ton?

A. Per ton.

Q. What is the range of prices at this time?

A. \$1.45 to \$1.50.

Q. How about last year?

Defendants interpose- the same objection last made.

A. Last year was approximately the same as this year; the year before was a raise; the year before was less than this year.

Q. Going back now say ten, twelve or fifteen years, what were the prices for steam coal?

A. About seventy-five cents.

Q. Since that time has or has not the range been upward?

4766 Defendants interpose- the same objection last made.

A. There has been an upward movement all the time.

Q. What do you say as to the supply of steam coal, generally speaking?

A. For nine months in the year there is a shortage.

Q. Owing to what?

A. The demand is greater than the production.

Q. And owing—any particular circumstance that creates that condition?

A. The use of steam coal is increasing all the time in greater proportion than the use of lump coal.

Q. And steel coal is what?

A. Steam coal is the screenings taken out of the lump coal.

Q. You said for nine months of the year there is a shortage; what about the other period?

A. About half of that time, or a month and a half it is about equal; in the fall for a month and a half, beginning approximately from the 15th of July to the 1st of August, for a month to a month and a half there is a temporary surplus, owing to the fact that the increase in the consumption of lump coal begins quicker than that of the fine coal. I might say it is impossible to store this fine coal in Iowa.

Q. Why?

A. It will fire.

Q. How, if at all, is the supply of steam coal affected by strike conditions?

Objected to on part of defendants as being immaterial and incompetent.

A. There isn't any when there is a strike.

Q. You say it is impossible to store it for any length of time?

A. Yes, sir.

4767 Q. Strikes have been known in the coal business?

A. Yes, sir.

Q. Mr. Hollingsworth, from your experience and knowledge of the coal business, what is your opinion as to the future course of prices of steam coal?

Objected to on part of defendants as incompetent, immaterial, not proper rebuttal and no proper foundation laid for any such testimony.

A. It will increase all the time.

Q. Recurring to the subject of strikes, the agreement between the operators and miners in this state is made every two years is it not?

A. Yes, sir.

Q. What has been the experience of operators as to whether difficulties are encountered every two years in coming to an adjustment?

A. There is always a suspension of operation. It varies; no one can tell how long it will last.

Q. It varies over what period?

A. The shortest period I recall is two weeks; from that up to six weeks in this state.

Cross-examination by Mr. R. O. BRENNAN:

Q. Mr. Hollingsworth what is the firm with which you are connected?

A. The Empire Coal Company.

Q. You are an officer in that company, are you?

A. Secretary and treasurer.

Q. Does the Empire Coal Company operate any coal mines in or about Des Moines?

A. No, sir.

4768 Q. They are jobbers in coal?

A. Yes, sir.

Q. Where do you buy your supplies?

A. Largely from the Empire Mining Company, one of our own organization-.

Q. The Empire Coal Mining Company is engaged in mining coal?

A. Yes, sir.

Q. In the state of Iowa?

A. Yes, sir.

Q. In what part of the state?

A. In Marion County.

Q. Near what town?

A. Everest.

Q. How many mines do they operate?

A. Two.

Q. Both in Marion County?

A. Yes, sir.

Q. Do you buy coal outside of the coal you buy from this firm?

A. We do.

Q. From local dealers?

A. Some.

Q. And where do you buy the most of the coal which you do not purchase from the Marion County mines?

A. There is such a little amount of that, it is scattered around here and there.

Q. How many coal mines are there in Polk County in operation?

A. About twelve, operating on the railroads. The local wagon mines I have not included.

Q. There are some of those are there not?

A. Yes, sir.

Q. Some in the immediate vicinity of Des Moines?

4769 A. In the corporate limits; their output is very small.

Q. Could you give the Master a notion as to the daily average output of the coal mines in this county?

A. Probably 3,000 tons.

Q. Lump coal?

A. Yes, sir.

Q. 3,000 tons of lump coal, and from the lump coal as it is screened, what kind of coal do you get for the market, in addition to the lump coal?

A. The steam coal.

Q. That is what is sometimes called boiler fuel?

A. I never heard it designated that way; that is what it is used for.

Q. Used for boiler fuel?

A. Yes, sir.

Q. About how much steam coal is there produced on an average?

A. About 25%.

The MASTER: Is that true of the Polk County mines?

A. Yes, sir.

Q. Is steam coal shipped into Des Moines?

A. A very great deal.

Q. From what sources is it received?

A. From our mines and from the mines around Albia, the mines at Colfax, some from High Bridge, occasionally, and some from Madrid.

Q. Any from Centerville?

A. No, sir.

Q. Well it is all within about how many miles of Des Moines?

A. Sixty-four is the maximum, as far as I know.

Q. Sixty-four miles?

A. Yes, sir.

4770 Q. What is the minimum outside of the corporate limits?

A. You mean the minimum distance?

Q. The minimum distance outside of the corporate limits.

A. The minimum distance is the five miles' rate.

Q. Where do you get the steam coal within the five mile rate?

A. The Keystone Mine, I believe is the only one that takes a five mile rate, a small mine out on the Milwaukee with a daily production of perhaps 100 tons a day.

Q. 100 tons of lump coal?

A. Yes, sir.

Q. Now you say that the tendency is upward in the price of coal?

A. Yes, sir.

Q. That is true of lump coal as well as the other coal?

A. More particularly of the screened coal, but it is true on both.

Q. There is a working agreement between the operators and miners in existence at this time, is there not?

A. Yes, sir.

Q. When will that agreement terminate?

A. On April 1, 1912.

Q. It has been the custom for some time past to enter into these working agreements every two years?

A. Yes, sir.

Q. The mines have been in full operation all season, have they not?

A. No, sir.

Q. They have not?

A. No, sir.

Q. When have they shut down?

A. About half of the time for the last six months.

Q. What was that due to?

A. Because they couldn't sell their lump coal.

4771 Q. There wasn't any market for it?

A. For the lump coal.

Q. Well, did they have any screened coal during the summer?

A. Whenever they loaded lump, they screened it.

Q. The lump coal is what operators pay the miners for, and the screenings is what you sell as steam coal?

A. That all depends on whether they are paying the miner on a screen coal basis or mine run basis.

Q. How do they usually base it; what does the contract call for?

A. It calls for both.

Q. Different mines have different contracts in that respect?

A. No, sir; the same contracts cover them with different conditions at the mines.

Q. Well, now what was the price of steam coal on the year 1906?

A. The minimum was \$1.20 and the maximum was \$1.25; understand that is f. o. b. Des Moines.

Q. \$1.20 and \$1.25?

A. Yes, sir; per ton of 2,000 pounds.

Q. F. o. b. Des Moines?

A. Yes, sir.

Q. Where would the car be delivered?

A. To wherever it was used within the switching limits.

Q. Suppose it was used at the works of the Des Moines Gas Company, you had a car of steam coal for the gas works?

A. It would be delivered on their track, where they desired to unload it.

Q. At \$1.20 or \$1.25 in the year 1906?

A. Yes, sir.

Q. At the siding at the Gas works?

A. Yes, sir.

4772 Q. That would cover all transfer charges?

A. Yes, sir.

Q. Loading and unloading?

A. No, sir; that is f. o. b. cars.

Q. That would include the loading, would it not?

A. Yes, sir.

Q. And delivery at the siding at the gas works at this price?

A. Yes, sir.

Q. Now in 1907, what was the range of prices for steam coal?

A. I think there was an increase that year.

Q. Do you remember how much?

A. Not without looking at our record.

Q. What makes you think there was an increase in 1907?

A. My recollection is an agreement expired the 1st of April, 1906, and there is always an increase when an agreement expires, because either the price of mining is raised, or conditions change which increase the cost of production.

Q. Every two years there has been an increase in the price of coal?

A. There is brought about one of those two things, either an increase in the cost of mining or an increase on account of the working conditions.

Q. How much do you think it increased in 1907 over 1906?

A. My recollection is our prices were raised about ten cents.

Q. Ten cents on the ton?

A. Yes, sir.

Q. So you think then it ranged from \$1.30 to \$1.35?

A. Yes, sir.

Q. That would be your judgment at this time?

A. Yes, sir.

4773 Q. Now in 1908, what was the price of steam coal in Des Moines?

A. I don't believe there was any raise in 1908.

Q. You think it remained about \$1.30 to \$1.35 a ton?

A. Yes, sir.

Q. What is your recollection as to the year 1909?

A. There was a raise of approximately ten cents a ton.

Q. Did that rise continue throughout the year 1909, or was there any reduction made?

A. It is continuing in effect yet; it is still in effect.

Q. That was the new working agreement entered into in April 1909?

A. That is my recollection.

Q. So that your recollection is that the price of steam coal in Des Moines was from \$1.40 to \$1.45 per ton then?

A. It was higher than that. From \$1.45 to \$1.50. I can give it to you by going to my books, the exact day this rise took effect.

Q. I understood you to say the 1907 price of steam coal was from \$1.30 to \$1.35 and in 1908 no change was noted?

A. There was a fifteen cent raise the last time approximately.

Q. That would be in 1909?

A. Yes.

Q. That would be then from \$1.45 to \$1.55?

A. To \$1.50.

Q. That is the price that now prevails?

A. Yes, sir. You understand this is on contract business, to extend through the year. Those are the prices I have referred to.

Q. That suggests to my mind this question: Have you a contract with the Des Moines Gas Company?

A. I do not.

Q. Did you have in the past a contract with the Des Moines Gas Company.

A. I have.

4774 Q. During what years did you furnish to the Des Moines Gas Company coal under contract?

A. In 1905 and 1906, as I recall it.

Q. 1905 and 1906; any other year?

A. Not under contract. We furnished it to them from time to time.

Q. The Des Moines Gas Company is a customer of yours at this time?

A. They are not. Our contract was with the Capital City Gas Company in 1905 and 1906.

Q. The Capital City Gas Light Company went out of existence presumably in 1906. Now did you supply the Des Moines Gas Company coal in 1906 after its organization?

A. We had a contract with them that covered two years. My recollection is it covered the years 1905 and 1906. It did not begin right on the first of the year; it may have been partly in 1904; it may have been partly in 1907; it was a period of two years.

Q. Well, you furnished coal to the Des Moines Gas Company after the month of March 1906?

A. Yes, sir.

Q. And you did not renew the contract with the company you say?

A. No, sir.

Q. You have had no written contract with the company since 1906?

A. Covering a short period only.

Q. When was that?

A. The late winter and early spring of 1911.

Q. That was this last winter and spring?

A. Yes, sir. And during the year 1910, I think it was, we furnished them perhaps fifty cars of mine run at a very handsome price; it was coal they had to put in storage to cover the suspension period.

4775 Q. When was the suspension period?

A. From April 1910 to the latter part of May 1910.

Q. The mines were suspended for a period of about 30 days?

A. My recollection is it covered exactly six weeks, from the 1st of April to the 15th of May.

Q. There was no strike in existence at that time, was there?

A. No, we do not like the word strike; we use the word suspension.

Q. In other words, Mr. Hollingsworth, you have these working agreements with the employes and they run for two years?

A. From one to two years. There has been one or two agreements that only run a year.

Q. Well, now, as the month of April 1910 approached, of course the parties were carrying on their negotiations looking to a renewal of the agreement, wasn't that the fact.

A. These negotiations never get anywhere until after the mines shut down.

Q. They were meeting jointly?

A. Yes, sir.

Q. During the pendency of the negotiations between the respective parties the mines were not in operation?

A. They were in operation up to the 1st of April; from that time on they were not.

Q. That was due to negotiations that were being carried on between the parties looking to the entering into a new agreement?

A. After the 1st of April, yes sir.

Q. But there was not what we term a strike, men quitting on account of some dissatisfaction with respect to the operation of the mine or wages or anything of that kind, but it was due entirely to this working, agreement, desiring a renewal of the contract on terms that would be satisfactory?

4776 A. Negotiating for a new contract, yes sir.

Q. General Byers suggests that it was not an arbitration?

A. It did not get to that point.

Q. Well then it is safe to say, Mr. Hollingsworth, there has not been what is termed a real strike in Des Moines for a number of years?

A. There are local strikes all the time.

Q. I mean affecting the operators and miners?

A. As far as our conditions are concerned, the operation of mines, it don't make any difference whether you call it a strike or what; the mines do not operate. The only difference between this condition and a strike is that pending these negotiations the miners furnish us sufficient men to keep the water out of our mines. If there was a strike they would not furnish those men.

Q. Well that is quite a help to the mine operators?

A. I don't know. Sometimes I think it would be better to have the mines fill up with water.

Q. Won't you answer the question. There has been a number of years since what has been and what is ordinarily termed a general strike?

A. Yes, sir.

Q. About how many years has that been?

A. I don't remember how long since there was a general strike.

Q. Can you approximate it; fifteen years or twenty years?

A. As far as I remember there has never been a time when there was a strike in all the mines around Des Moines at the same time.

Q. Now how long have you been operating coal mines under these working agreements, to your knowledge?

A. My recollection is the first joint agreement was made somewhere from 1900 to 1902.

4777 Q. There wasn't a strike at the time in 1900?

A. There wasn't any strike, further than these suspensions. It all amount- to the same thing. There have been local strikes in local mines. There is one in effect not at Excelsior. It is not uncommon to have the men go home and refuse to work from a day to a week.

Q. That is due to local conditions and to a construction of their contract sometimes?

A. Yes.

Q. The miners claiming the operators were violating their agreement in some instance which produced dissatisfaction?

A. They do not claim that so much. They claim they want this and that done and they have a very effective way of getting what they want.

Q. Every time they get what they want you succeed in boosting the *pri* price of coal a little to equalize matters?

A. We try to.

Q. Now about how much coal have you furnished to the Des Moines Gas Company within the past year?

A. Oh, as I recollect it, anywhere from 25 to 50 cars.

Q. 25 to 50 cars?

A. Yes.

Q. And that you say wasn't under any written contract?

A. The written contract covered the furnishing of that amount.

Q. Then you did have a contract covering a part of the year 1911. When did you last furnish the company coal under that contract?

A. I think perhaps it was in April or May.

Q. Of this year?

A. Yes.

Q. And has the contract terminated by its terms?

4778 A. No, sir.

Q. It is still in existence, is it?

A. The contract is in existence. The reason we quit furnishing the coal, we couldn't get steam coal.

Q. You have a contract at this time with the Des Moines Gas Company?

A. I don't remember without looking at it whether it has expired or not.

Q. Your recollection is it has not expired?

A. If it has not expired it will expire very very shortly.

Q. Do you remember at what price you were furnishing the Des Moines Gas Company steam coal under the contract?

A. I do.

Q. What is that price?

A. \$1.50.

Q. Do you remember what you furnished them coal for in 1905 or 1906?

A. \$1.25.

Q. Now you are sure there has been a steady rise in the price of steam coal covering the past five year- in the city of Des Moines?

A. Yes, sir; it has risen from the price I gave you to the present price. To give you the exact date, I couldn't do that without looking at my books.

Q. Would you be surprised if you knew that the Des Moines Gas Company, at any rate its fuel bill for boiler fuel was not as great as in former years, that it has declined?

A. I know nothing about that.

Q. That would surprise you, wouldn't it?

A. I would want to know all the conditions surrounding that.

Q. How?

A. I would want to know the reason why it declined.

Q. The last coal you furnished was furnished at \$1.50 a
4779 ton and that was some time in April or May of this year.

A. As I recall it, yes sir.

Q. It is less than that now, isn't it?

A. On contract?

Q. Yes.

A. No, sir.

Q. Why do you say on contract?

A. Because on contract we arrive at what is a fair price for the year. If it is not on contract they may be able to buy coal at sev-

enty-five cents or a dollar now, but in the winter it may be two or three dollars and they may not get it at all.

Q. What is it today in Des Moines?

A. I would say today the cheapest coal could be bought for would run from \$1.40 to \$1.50; that is, picking up local cars that is not on contract basis. I want to be sure we understand one another.

Q. You buy steam coal then in the open market at these prices?

A. Yes, sir.

Q. Now the contracts which you had with the Des Moines Gas Company, was there a minimum amount fixed in the contract for which you were required to furnish it each year?

A. I don't remember how our contract read really on that feature.

Q. Did the company obligate itself to accept from you coal to a certain amount and do you remember what that minimum amount was?

A. My recollection is that the contract read the requirements.

Q. That is their requirements for steam coal and in case you were not able to furnish coal to the Des Moines Gas Company to the extent of its requirements, what provision was made to purchase coal elsewhere?

A. We have a clause in all of our contracts, among other things it says any cause beyond our control, we cannot furnish it, the contract is void during such time. When we cannot sell lump coal, that is a cause beyond our control.

Q. Do you know of any other firm in the city of Des Moines or elsewhere that sold to the Des Moines Gas Company steam coal?

A. I do not; I don't know where they buy.

Q. You have no knowledge on that subject?

A. I do not.

Q. So you are apprehensive, Mr. Hollingsworth, that after the agreement entered into in 1912 it will be necessary for the operators to advance the price of coal just a little?

A. There isn't any doubt of it in my mind.

Q. That is merely a conclusion on your part at this time; you are anticipating that the miners will make some stronger demands than they have in the past?

A. There isn't any question but they will make a demand.

Q. There isn't any question but what the operators will to the utmost of their ability resist the demand and get the very best bargain they can?

A. Yes.

Q. Are there any new mines being developed in the immediate vicinity of Des Moines at this time?

A. There is a little local mine south of Des Moines. So far as I know the balance of Polk County has been prospected and all the known coal developed.

Q. It has not been mined out entirely?

A. It is going very rapidly. Polk County's production in five years will decrease fifty per cent and keep on decreasing.

Q. You think they will not be able to have any strikes around here then?

4781 A. It don't make any difference if they do.

Q. It don't affect the price if they open up a half dozen new mines?

A. That undoubtedly would have a bearing on the situation.

Q. I say, if that condition should develop, whereby they would be able to open up several mines, that would have its effect on the retail price of coal?

A. Very little. The margin of profit now is as low as it can be and still operate.

Q. This mine out here on the Mott farm, is that in operation?

A. Yes, sir.

Q. Do you know what the daily output of that mine is in its strongest capacity?

A. I would say about two hundred to two hundred and fifty tons.

Q. There are a number of coal mines near Highland Park?

A. Two.

Q. Large mines?

A. Yes, sir.

Q. What is the daily output of those mines?

A. Their daily output a couple of years ago was very good; but they are on the decline now. I would say they were probably loading having a possible production of 500 to 600 tons each. Two years ago one of them would load a thousand tons.

Q. Take it in the northeast part of the city, north of the Fair Ground, there is a mine in operation out there?

A. There is the Glenwood mine, a wagon mine.

Q. Then there are some mines south of the Raccoon River?

A. Yes, sir.

Q. How many?

A. Two; the one I spoke about being developed, a local mine, and two others.

4782 Q. So it is your notion if a half dozen mines would be opened in this county, it would not affect the price of coal materially?

A. Very little.

The MASTER: In other words, if I understand you right, the price of coal largely depends upon the working agreement between the miners and operators?

A. Yes, sir.

The MASTER: That fixes the entire business?

A. That fixes the cost of production.

The MASTER: How extensive is that agreement?

A. That agreement is made with all the mines in Iowa and Putman County, Missouri, known as District No. 13 of the Mine Workers of America.

Q. Mr. Hollingworth, how many mines in Polk County are paying the miners for the screened coal?

A. Any of those that are working on a mine run basis; I can't tell you that.

Q. What does the miner receive for the lump coal on a lump coal basis?

A. \$1.00 a ton.

Q. On the mine run basis, what is it?

A. I think it is seventy-three cents.

Q. They do store steam coal in small quantities, don't they?

A. Not for any length of time.

Q. For what length of time is it safe to store steam coal?

A. That depends on the condition of the coal, whether it is wet or dry or hot or cold. In cold weather they can store from 30 to 60 days; in hot weather it will fire from 20 to 30 days.

Q. I understood you to say you had supplied the Des 4783 Moines Gas Company with sufficient steam coal to carry over this period?

A. Mine run.

Q. What do you mean by mine run?

A. Everything as it comes from the mine, lump and steam, before it is screened.

Q. The lump and nut?

A. And everything.

Q. Everything went right into the car as it came from the mine, and that was sold to the Des Moines Gas Company for how much a ton?

A. My recollection is \$2.50 a ton.

Q. What was the ordinary lump coal selling for under contract?

A. That price was not under contract; that was strike coal, where we always get a higher price.

Q. You were getting the top notch price for that coal?

A. We were getting all we thought we could.

Q. The strike, as you call it, suspension, lasted about six weeks how long did the suspension last in 1908?

A. I think three weeks.

Q. And in 1906, do you recall how long the mines were suspended?

A. I do not.

Q. Or in 1904 or 1902?

A. I do not.

Q. Do you remember how much coal the Des Moines Gas Company purchased to tide it over the six weeks in the spring of 1910?

A. My recollection is they bought of me 50 cars. I do not know what they may have bought from anyone else.

Q. About how many tons to the car?

A. They will run from 30 to 50 tons.

Q. 30 to 50?

4784 A. Yes, sir.

Q. Do you know whether they purchased coal during that same period from other dealers in the city of Des Moines?

A. I do not.

Q. Well, that was an abnormal condition existing for those six weeks, isn't that true?

A. I would hardly term it abnormal; it comes with persistent regularity every year or two.

Q. But it may last a week and the mines may not be suspended even a week?

A. An industry has to supply itself for at least thirty days. If they do not there isn't any question but what the man that is responsible, if the strike only lasts a week or so, of course he is a smart man; if it lasts longer than that he will lose his job, and they will say that any fool ought to know better.

Q. We are assuming now that both sides are acting in good faith and they desire to renew their contracts on a proper basis. Now you say that it is customary to lay up a supply to run thirty days; the railroads make that practice and that is true of the mine operators as well; you try to have on hand a sufficient amount of coal, don't you?

A. We do not personally aim to have one pound of coal on track after six o'clock the 13th day of March; the customer has to carry his own burden.

Q. I do not believe that is a direct answer to the question. Question repeated?

A. I meant to convey the impression that we have no available coal out of the ground.

Q. Do I understand you to mean this, Mr. Hollingsworth: Assuming for instance that the 1st of April will be the day after 4785 pointed for the suspension of the mine, and that from and after the 1st day of April the mine has no coal on hand with which to supply the customers or perform contracts?

A. We do not.

Q. That your supply of coal is exhausted?

A. It is.

Q. Is that true as to the mines generally over the state?

A. Largely.

Q. What do you mean by largely.

A. I mean there may be a few isolated cases. That is the custom. On the other hand, some few people carry over a stock to speculate with, to get higher prices on.

Q. There is considerable of that done at that time?

A. I don't think considerable; that is done largely by the retail dealers.

Q. You have had no experience of that kind in Des Moines during the suspension of operations, that there was a fictitious price put on coal?

A. I do not know what you mean by fictitious price.

Q. You said some people would store up coal for the purpose of speculation?

A. It has been done in Des Moines.

Q. You say that is confined to the retail dealers?

A. Largely, yes sir.

Q. And the local mine operators, those without track connections, wagon mines.

Q. How many are there of these you say?

A. There are at the present time, I would say about five around Des Moines.

The MASTER: They are close to Des Moines?

4786 A. They are in Des Moines, in the corporate limits, but they are a good many miles from here; some of them I suppose are as high as five miles from here.

Q. Well, all the speculation then has been limited to the retail dealers or the local or wagon mines as you term them.

A. After the suspension; we will speculate before the suspension.

Q. What could steam coal have been purchased for in the open market in Des Moines say in the month of May 1911?

A. Personally I paid, if I recollect it, \$1.60 a ton.

Q. \$1.60?

A. Yes.

Q. And in the month of June, what was it worth?

A. Approximately the same.

Q. In September, was there any difference?

A. Yes, sir.

Q. What was the price in September?

A. I would say, \$1.40.

Q. And that is the prevailing price at this time?

A. \$1.40 to \$1.50 yes sir.

Redirect examination by Mr. READ:

Q. What is the condition of the local supply, is it adequate to meet the demands of consumers who have to have a constant supply?

A. It is not.

Q. To what extent, Mr. Hollingsworth, has your firm or concern handled coal, how extensively is your business generally?

A. We have handled through our office in the past ten years from a thousand to fifteen hundred tons a day.

Q. How does that compare with the business of other dealers?

4787 A. I don't believe there is but one concern that handles any more.

Q. Referring to the coal supply in Polk County, have any mines shut down in the last few years?

A. Yes, sir.

Q. The Bloomfield closed down?

A. Yes, sir.

Q. Why?

A. It run out of coal, and other conditions got so they could not mine what they had left.

Q. Has there been a change in Polk County in that respect in respect to the coal supply and the number of coal mines in the last four or five or six years?

A. It has been about the same; but it will not be in the future.

Q. Why not?

Objected to on part of defendants as incompetent and not proper re-direct examination.

A. The supply of available coal is becoming exhausted and practically all the land in Polk County has been prospected.

Recross-examination by Mr. BRENNAN:

Q. Do you have in mind having furnished to the Des Moines Gas Company and mine run coal prior to the spring of 1910?

A. I do not.

Q. So far as you know, that was the only instance in which it was required or thought necessary to buy mine run coal?

A. So far as we were concerned that was the only year; we had a surplus available.

Q. So far as you know it was the only year in the history of the Des Moines Gas Company that it felt itself obliged to purchase what is called mine run coal?

A. I know nothing about it.

Q. At any rate you never furnished any mine run coal save and except in this one instance, this six weeks period, and that was to the extent of fifty to sixty cars?

A. I believe I said from 25 to 50.

Q. You said 50 to 60 tons to the car?

A. I said 30 to 50 tons to the car.

Q. Now as far as you know prior to 1910 there was no such suspension of work for such length of time as that persons who required boiler fuel could not obtain the same in the open market?

A. If they had not supplied themselves before the suspension they could not obtain any at all.

Q. As far as you now recall there was no case where it became necessary to buy mine run coal prior to 1910?

A. By anybody, do you mean?

Q. By the Gas Company or people generally.

A. We furnished it to others, yes. We never furnished the Gas Company. What they may have done, I don't know.

Q. Prior to 1910?

A. We furnished it to others, yes sir.

Q. Prior to the year 1910?

A. Yes, sir.

Q. Do you know why they bought mine run coal?

A. I do.

Q. How many did you furnish?

A. We furnished it to the Street Car Company and the Agar Packing Company.

Q. Was that in 1910?

A. You said prior to 1910.

4789 Q. Was it in 1910?

A. We furnished the Street Car Company in 1910. We did not furnish the Packing Company because we did not have a contract.

Q. When did you furnish the Street Railway Company mine run coal before that?

A. Every year there was a suspension.

Q. How many suspensions were there?

A. I should say about four. There was one time that this agreement was only for a year. I don't recall the exact time.

Q. Everything was closed down during that year, was it?

A. It was closed down from the 1st of April pending the settlement. It came every year that time, instead of every two years.

Q. You do not mean by that that the mines were suspended covering a period of one year?

A. I mean the working agreement only covered the period of a year instead of two years.

Q. I want you to state if you recall, Mr. Hollingsworth, the periods of time when the mines were suspended, growing out of the settlement of their working agreements?

A. They suspended a year ago last April.

Q. A year ago last April, 1910, that was for a period of six weeks?

A. Yes, sir.

Q. In 1908, what was the length of time of suspension?

A. Three weeks, I think.

Q. And in 1906, do you recall what length of time was occupied in working out the agreement?

A. As far as I recall about two weeks.

Q. So there was a suspension of about two weeks; prior to that time, in 1904, how was it?

A. They averaged about two weeks prior to the one of 4790 three, and they are getting worse.

Q. Now during those periods of suspension was any coal being shipped into Des Moines from other states?

A. One year I think it was 1906, we shipped considerable mine run in here from Missouri and sold it for \$4 a ton.

Q. During, say 1910, was coal being shipped in here?

A. The agreements all over the United States expire at the same time. This other time when we shipped coal in from Missouri the Missouri agreement did not expire that year until in September.

Q. At any rate, during that year the speculation was not limited to the local retailer or the wagon mines?

A. We got some that year; we happened to be mining that coal in Missouri that we sold for \$4 a ton.

Excused.

J. A. PEARSON, being first duly sworn on part of complainant, in rebuttal, examined in chief by N. T. Guernsey, Esq., testified:

Q. Where do you reside?

A. Philadelphia, Pa.

Q. You are the purchasing agent for the Des Moines Gas Company and also for the U. G. I. Company?

A. Yes, sir.

4791 Q. How long have you been engaged in making purchases in connection with gas plants?

A. About twenty-three years.

Q. Now in the first place, you are the man who is supposed to get a salary of \$2,500 a year from the Des Moines Gas Company as purchasing agent?

A. Yes, sir.

Q. That salary is turned over to the U. G. I. Company, is it not?

A. Yes, sir.

Q. Now, then, Mr. Pearson, your purchases—and I do not want to go into detail as to these matters that have been gone over thoroughly—your purchases for the Des Moines Gas Company include whatever you can purchase with more economy than the company can here?

Objected to on part of defendants as being leading.

A. Yes, sir.

Q. What is the practice, where purchases can be made with more economy by the Company, or more economically than you can do it?

A. They make it here.

Q. Where you make the purchases for the Company, that is, take your purchases like oil or coal, or things of that kind, that are for a considerable amount or cover a considerable period, at the present time, that is, take 1910 and thereafter, the contracts are made in the name of the Des Moines Gas Company, as I understand it?

A. Yes.

Q. Do you have anything to do with the payments under the contract?

A. No.

Q. There has been some testimony here, Mr. Pearson, as to the prices of oil, showing that in some instances small plants are buying oil at a lower price, apparently, than is paid here in Des
4792 Moines. I wish you would go into that fully and explain just what the situation is, and explain what your experience is in buying oil, and what the oil supply is, so as to explain fully to the Master the factors that bear on that question?

A. In the first place, the oil bought for Des Moines is bought under specifications, and which specifications has been adopted by the engineers, providing an oil that will give the best results in gas works practice. In the second place, with a Company using as much oil as Des Moines does, it is necessary to entrust that business to some concern which is reliable enough to insure always getting a supply. Now in the case of these small companies getting a lower price, that is probably due to the fact—

Objected to on part of defendants because, unless he knows, it is incompetent and a mere expression of opinion on the part of the witness on a subject that he has no right to express an opinion without any claim of knowledge or information about the local prices and the situation of the plant.

Q. Go on and state the factors that you know of bearing upon that question.

A. I do know from my own experience that there are a great number of oil companies in this part of the country who are able to take a contract for 100,000 gallons of oil a year, that will refuse to bid on a contract which involves—I think the Des Moines supply is something over 2,000,000 gallons a year—consequently when a concern like the Standard Oil Company is quoting a price for Des Moines, they know exactly from their knowledge of this small concern, exactly what competition they have to meet, where a company

4793 is small they know the competition they have to meet will be a lot of little companies who cannot take care of that business.

That shuts out the competition for the Des Moines oil all these small companies. The oil business is very curious in that respect. The larger the quantity of oil is apt to be, the higher price you will have to pay.

Q. Why is it necessary that a company have an assured supply of oil; what would be the result if you bought oil from one of these small companies and it couldn't furnish it?

A. One of two things would happen: we would have to go to a large company and pay an excessive price, or if we refused to do that the gas would go off the town and we couldn't make gas.

Q. I wish you would state where the oil for the Des Moines plant comes from?

A. It comes—I am not quite sure where it comes from now—it used to come from Whiting, Indiana. Whether it comes from Sugar Creek refinery around Kansas City, I don't know. It comes from one of these two refineries.

Q. Where does the oil that is refined at these refineries come from?

A. The Sugar Creek oil comes from either Kansas or Oklahoma. The Whiting oil comes from, I think most of it, from Ohio, Indiana and Illinois.

Q. How is the oil brought to the refineries?

A. Usually in pipe lines.

Q. And from these refineries to Des Moines, how is it transported?

A. In tank cars.

Q. With reference to the general oil situation, I wish you would tell the Master what has been the history of the development of the oil fields in the United States and what undeveloped territory there is, if any, now, that we may look to for an increase in supply?

4794 A. The oil business started in Pennsylvania originally. Then the prospecting for oil gradually extended until it embraced Ohio, and then from there it went to West Virginia, and then to Indiana. Then to Texas. Then fields were discovered in Illinois, and somewhere about that time there were some fields discovered in Kentucky. After this, and the last fields, Kansas came in there somewhere, I can't remember the exact dates; and the last field was the Oklahoma fields. More oil is coming from there now than any part of what we call the mid-continental field, which is this field in the central west. The last one that was developed was the Caddo; that was a great disappointment to the oil men, because they expected to get a great deal of oil, and there was not as much oil as they anticipated.

The MASTER: Where is that?

A. That is in Oklahoma. The Texas field which was originally a very great field—the gusher that Captain Lucas discovered down there I think gave 200,000 gallons a day. That field is comparatively small now, so much so that the big Texas companies are depending for the majority of their oil on Oklahoma and Indian Territory. There is some oil in Wyoming. The California fields have been pretty well exploited. As I look at the situation, there are not many states left where oil is known. They certainly have definitely

determined, for instance, that there is no oil in New England, none in New York state, none in Delaware, and none in Florida. There are some prospects of oil in Louisiana, but nothing very much has come of it. There are some fields there but they are small. Unless they can find oil in states like Idaho or Montana or Washington, the known production is pretty well determined. Of course you can not say positively. As a matter of fact the oil stocks are less than they were two years ago. So that it looks as if somewhere in the
 4795 future—I don't know how close—the oil prices would go up, because the production will not keep pace with the demand. Does that answer your question.

The defendants moves to strike the answer of the witness when he says it looks like the prices of oil will in the future go up, as being incompetent.

Q. There is one thing, I think you told me about as illustrating this tendency that I would like to ask you about to see if I am right. As I recall it, you told me on account of other uses that have been found for these products, the character of the oil which has been available at prices so that it could be used in the gas burners has been going down. I wish you would tell the court what the facts are about that and illustrate it if you will.

A. That phase of the oil business I spoke to Mr. Guernsey about is this: About 1892, or along in there, I was buying for the gas companies what was known as 70 degree naphtha, which was a very high class oil, rich and useful for gas making purposes. After a few years the 70 degree naphtha oil disappeared entirely from the gas business, because the development of other uses by the oil companies raised the price of that naphtha to about twelve cents a gallon, and we were then forced to take a lower grade of oil. That process has been going on until today the gas oil that is being supplied to gas companies is practically as low a quality of oil as it is possible for gas companies to get. That is the way in which the oil companies by refining and distilling into gasoline, naphtha, benzine, and all the oils they are selling to different lines of business, are paid more for that oil than gas companies can afford to pay.

4796 The MASTER: Is that because of the use of gasoline, automobiles, and so on ?

A. Gasoline engines, automobiles, motor boats and all kinds of uses. So that today if we find a competitor—I mean if some lines of business develop a use for gas oil and can pay more for it, the gas business will have to compete with that trade, and either pay the price or go to a still lower grade, and that lower grade will be the refuse; we cannot get any lower. That is the reason for the companies to go to some sort of a specification in order to determine something which would be adapted to the heats in the generators.

Q. You have talked about a gradual decrease for fifteen years in the quality of the oil which you have been buying for gas purposes. Has there during the same period been a corresponding decrease in the price you have been required to pay for the oil or not? You started with your 70 degree naphtha; I wish you would state whether

the price you have been required to pay has been commensurate with the quality of the oil or not during this period?

A. The price we are compelled to pay today is about a half a cent a gallon higher than we paid for 70 degree naphtha fifteen years ago; that is in general terms.

Q. You stated you have been buying oil in the gas business for twenty-three years. How long have you been buying oil for that business for the Des Moines Company and other companies located in this general locality?

A. My impression is I have bought all the oil for the Des Moines Company—strike that out please—My impression is when I came with the United Gas Improvement Company, that they were interested in the Des Moines Gas Company as a stockholder at 4797 that time; that is, twenty-three years. The other companies in the middle west, I don't remember the date; it has been for a good many years.

Q. I did not care for the dates. Have you, say for ten years, been buying oil for the Des Moines Company and other companies in this general locality?

A. Yes.

Q. Have you during the last ten years also bought gas oil for companies that are located in other parts of the United States, covering generally the territory between here and the Atlantic seaboard?

A. Yes.

Q. Is that still a part of your business now, to buy oil for some of these companies?

A. Yes.

Q. What in your judgment, if a contract were to be made today for oil for the Des Moines Gas Company, such oil as it is now receiving, would be a reasonable market value for oil, such as the Des Moines Gas Company uses, if you were purchasing today in the market as it is ordinarily purchased for such companies.

Objected to on the part of defendants as incompetent and immaterial, no proper foundation having been laid and it is not the best evidence.

A. I think the price would be about three cents.

Q. One more question, Mr. Pearson. You spoke of your purchases for the Des Moines Gas Company, what is the fact as to whether you have a number of assistants and whether they also help do this work?

A. That is true, sir.

4798 Cross examination by Hon. H. W. BYERS:

Q. How long have you been with the U. G. I.?

A. Twenty-three years.

Q. What is the U. G. I. paying for oil under its present contract?

A. We have two contracts in Philadelphia, General. The price on one is 2.5 cents on the other 2.48.

Q. Do you mean two contracts running at the same time?

A. The Philadelphia Gas Works has a very large property. We have thought it wise to divide the oil business between two oil companies.

Q. What two companies have the contract?

A. The Gulf Refining Company is one and the Standard Oil Company.

Q. Has the Gulf Refining Company any relation to the Standard?

A. Entirely independent, as far as my knowledge goes.

Q. Where is it located?

A. Their main office is in Pittsburg. Their oil production is in Oklahoma and Indian Territory.

Q. What is the price of the Texas and Oklahoma Company?

A. 2.48 and the Standard 2.50.

Q. The 2.48 is delivered at Philadelphia?

A. In our tanks at Philadelphia. The oil is brought up by boats. It is piped down from the Indian Territory field to Port Arthur and there loaded into tank boats and taken to the station at Philadelphia and pumped directly from the barge into the tanks.

Q. Have you a copy of the U. G. I. contract with the Standard people with you?

A. No, sir.

Q. What is the other company?

A. The Gulf Refining Company.

4799 Q. When was that made with the Gulf Refining Company?

A. As near as I can remember it was about two years ago. It is a long term contract.

Q. How long a term?

A. About three years or three and a half years.

Q. What is the quantity they agree to furnish?

A. My impression is each one of those companies has about the same gas made at each plant. I think each are for 75 million gallon; 150 million for the whole city.

Q. What other contracts did you make with the Standard people with these other companies at that time?

A. Do you want them all?

Q. Well you can specify a few of them.

A. Well the Standard Oil Company have the contract at Waterbury, Conn., the contract at Syracuse, N. Y., and the contract at Omaha, Neb., and Burlington, Iowa, and South Bend, Ind., Hammond, Ind., Charleston, South Carolina, St. Augustine, Fla., and Vicksburg, Miss. Is that enough?

Q. Yes, were they all made at the same time?

A. No, they are made at different intervals, as the agreements expire.

Q. Were the contracts that you made made at the same time that you made these contracts for the U. G. I. of Philadelphia?

A. No, I don't think they were. There may have been some of them.

Q. What is the contract price at Burlington?

A. 2.72.

Q. When do you say that was made?

A. That was made, my recollection is, on about the 1st of January this year.

Q. What was it under the contract before that?

4800 A. I don't remember.

Q. You made the contract, did you?

A. Oh, yes.

Q. You say you don't remember?

A. I have so many of them, it is impossible to carry them all.

Q. Was it higher or lower?

A. My impression is it was. I really don't remember.

Q. How long has the contract run that they had for 2.72?

A. I think it has for two or three years. I have been making them all for two or three years on account of the present low price of oil.

Q. It is at least two years?

A. Yes, sir.

Q. What is the price at Omaha?

A. 2.5.

Q. What company is that with?

A. With the Standard.

Q. Where do they ship their oil from?

A. I think that oil comes from Sugar Creek.

Q. Down at Kansas City?

A. Kansas City.

Q. What do you say the contract price is?

A. 2.5.

Q. Delivered at Omaha?

A. Yes, sir.

Q. When was that contract made?

A. That contract was made about the same time the Des Moines contract was made; I think some time in 1909, I think both that and the Des Moines contract expire in 1912.

Q. They are good yet until what time in 1912?

4801 A. We do not know exactly. There is a lump quantity of oil purchased. The Oil Company agree to furnish the oil from a certain date until all the oil is taken.

Q. Isn't this the fact about the Des Moines contract and the Omaha contract and all the others that they were made at the same time; that the contract was made by the Standard people to deliver a sum total of gallons of oil without respect to these different places and you divide it up yourself as to the amount to be shipped?

A. No, sir.

Q. How is the contract with respect to that?

A. Each contract is made separately. Bids are asked from oil companies. For instance, taking the Des Moines Gas Company as an illustration. We bought 7,590,000 gallons, as I remember the quantity. Bids were asked in the name of the Des Moines Company for that supply of oil.

Q. From whom?

A. From the Standard Oil Company, the National Refining Company, The Sun Company—

Q. Who is the National Refining Company?

A. An Oil Company in Cleveland, Ohio.

Q. It is the Standard Oil Company?

A. I think not, sir.

Q. They have a representative here in Des Moines, haven't they?

A. I don't know. At any rate, I have noticed that wherever the Standard Oil Company gets interested in a competitive oil company, we do not get any bids from them.

Q. You stated you asked bids from those people?

A. Yes.

Q. Did you get a bid from the Cleveland people?

4802 A. Yes.

Q. What was it?

A. The bid as I remember it was slightly higher than the Standard Oil Company, either 2.85 or 2.95.

Q. Are you sure about the rate?

A. I am positive it was higher.

Q. Do you know what company is furnishing oil down here at Knoxville in this state?

A. I don't know anything about the oil business in Iowa, outside of what I have to do with.

Q. What is the price at Sioux City?

A. Three cents.

Q. Who was that bought from?

A. The Standard Oil Company.

Q. At the same time the contract for Des Moines was made?

A. Approximately.

Q. At the same time the Omaha contract was made?

A. As I say, I don't know the exact dates; they all come up at different periods. I would like to finish my answer on the other.

Q. All right.

A. My method rather is to get bids in the name of the Des Moines Company from all the oil companies that I believe could furnish the supply of oil. After those bids are received I make a recommendation to the board of the Des Moines Company to accept the lowest price that I have received, setting forth the other bids that I have gotten, and that recommendation is approved by the board and I then make the contract with the successful bidder.

4803 Q. Well, of course, you have the bids that you got when you asked for bids the last time for the Des Moines Company, from the several oil companies?

A. Yes, sir.

Q. I wish you would produce them here so that we can have them marked. You began by stating that the reason oil might be a little higher in Des Moines than in some of these smaller towns where a smaller quantity was used was, because the smaller companies could not compete or agree to furnish the amount that would be needed for so large a consumption as in Des Moines?

A. Yes, sir.

Q. And still you do ask them to bid?

A. I do not ask companies of the type I am talking about.

Q. The Cleveland company is rather a small concern?

A. Yes, it is small, but we have had one or two contracts with them and they carried them out very nicely without giving us any trouble.

Q. Do you remember the president's name of the Cleveland company?

A. The man I have always seen is a man by the name of Fretter; I don't know whether he is the president, I think he is secretary.

Q. What is the price being paid at Minneapolis?

A. I don't know, sir; I don't buy at Minneapolis.

Q. You don't make that?

A. No, sir.

Q. What is it at Allentown, Pa.?

A. We made that contract this year. My impression is that price is about 2.65 or 2.70?

A. I don't know accurately without looking at the record.

Q. What is it at Harrisburg?

4804 Q. *What is it at Harrisburg?*

A. It is about the same.

Q. At Kansas City?

A. Kansas City don't use any oil; it has natural gas.

Q. What is it at Sioux Falls, S. D.?

A. I don't remember that price exactly; something over three cents. 3.40 along there.

Q. What is it at Vicksburg?

A. Vicksburg price is in the neighborhood of 2.40.

Q. It is a little closer to the field?

A. Yes, sir.

Q. Do you make the contracts for Allentown?

A. Yes, sir.

Q. And Burlington?

A. Yes, sir.

Q. And for the Chester County Gas Company?

A. Yes, sir.

Q. The Connecticut Railway and Lighting Company?

A. I used to; I don't any more.

Q. The Consumers Gas Company?

A. Where is it?

Q. It is at Reading.

A. Yes.

Q. The Dauphin County Gas Company?

A. They don't use any oil; that is to say if they do it is taken out of the supply of one of the near by companies.

Q. The Essex and Hudson Gas Company of Newark, New Jersey?

A. The Essex and Hudson is a part public service corporation.

Q. You buy the oil?

A. Yes.

4805 Q. That concern is a publicly operated concern?

A. It is a part of the public service corporation.

Q. What price do they pay there?

A. 2.45.

Q. Delivered, of course?

A. Delivered in the tanks; that is boat delivery too.

Q. At the city?

A. At the works, ye's sir.

Q. The Fulton County Gas and Electric Company?

A. Yes, sir.

Q. That is with a southern company?

A. That contract is with the Standard.

Q. From where do they ship the oil?

A. Either from Bayonne, New Jersey or from the refinery in Connecticut—I can't think of the name.

Q. The Harrisburg contract, what company is that in?

A. The Sun Company.

Q. Where is their oil?

A. Their oil comes from down in Texas or Oklohoma.

Q. What do you say it is delivered for?

A. I think the price I stated was either 2.65 or 2.70.

Q. Now you say you get a salary of \$2500 from the Des Moines Company and that goes to the U. G. I. When did you first commence that practice?

A. I don't remember the exact date, General.

Q. You have been purchasing oil for the Des Moines Company for a good many years?

A. Yes, sir.

Q. And this practice of getting a \$2500 salary has only been in vogue for a year and a half, has it not, commenced in 1909?
4806 A. I don't know the date.

Q. I suppose you don't know anything about why it was done, or the reason for it, or anything of that kind; but you do know vouchers came to you to be signed over.

A. I have a general understanding of the subject, and that is that the Des Moines Company pays the United Gas Improvement Company a certain amount of money every year for the services of the various men of which I am one, and the proportion that I get is, I presume just assigned to me in a general way.

Q. Was it your understanding that they had some kind of an agreement of that kind with the Des Moines Gas Company?

A. My understanding is they have it now.

Q. For how long, is it your understanding?

A. I don't remember when I first heard it.

Q. Was that understanding for a fixed sum, as you understood it?

A. I didn't know anything about it until I was told by the treasurer that these vouchers would come to me, and this was the portion that had been allotted to the purchasing department.

Q. I suppose when the first one of those vouchers came to you, you had some curiosity to know why the voucher was made out for you in that way and you inquired?

A. Mr. Lillie explained it to me at the time that this was money

being paid to the company for a portion of the services which the purchasing department was doing.

Q. How many of these companies do you get these vouchers from?

A. I don't know, sir; there are a good many.

Q. I suppose all of them?

A. Well, no; not all of them; a considerable number of them.

Q. You get it from Sioux City?

A. Yes.

4807 Q. You get it from this little plant at Burlington?

A. I don't remember about Burlington.

Q. Let me see, if we can find out how many; I would like to know how much income the Company has in that direction.

A. You can't find out from me because I don't know.

Q. Do you get it from Allentown?

A. I don't remember.

Q. You said you did from Burlington?

A. No, I didn't; I don't remember Burlington. I said Sioux City.

Q. From Omaha?

A. I don't remember about Omaha.

Q. The Chester County Gas Company?

A. No, I don't remember. I don't think I do from Chester.

Q. The Consumers' Gas Company?

A. No.

Q. Reading?

A. I don't think so.

Q. You have some idea how many of those things you have signed over every month?

A. I suppose there are probably fifteen, maybe.

Q. How many do you buy for all together?

A. I can't remember. Mr. Curran gave a list here the other day, I think, of 28 or 29.

Q. You buy for the list that he named the other day?

A. I don't remember whether that list included Minneapolis or not. I think in a general way that is true.

Q. The companies that he named?

A. Yes.

Q. Out of that 28 or more you think there are about fifteen that you draw this from?

4808 A. That is my recollection.

Q. Is the sum \$2,500 in each instance?

A. No the amounts vary.

Q. What is the lowest amount?

A. I think the lowest amount is about \$500 a year.

Q. Do you know what company that is?

A. No, sir; I don't remember.

Q. Do you recall the Sioux City amount?

A. No.

Q. Harrisburg?

A. No.

Q. Or Burlington?

A. I don't recall any of them.

Q. I suppose you pay little attention to that?

A. Well, I probably notice it. If I had signed the vouchers yesterday I could probably tell you. I happen to know the Des Moines one on account of this lawsuit.

Q. The fact that that is rather a live subject at this time makes you know that?

A. Yes, sir.

Q. In making your contracts with the oil companies you deal directly with the sales agents of the Standard and these other concerns?

A. Yes, sir.

Q. You have been dealing with them for years?

A. Yes, sir.

Q. Buying very large quantities of oil?

A. Yes, sir.

Q. In what other places besides Philadelphia does the U. G. I. in its own name now buy oil in its own name and have the shipment made to the outside company?

4809 A. We do not do that at all.

Q. As to none of them?

A. None of them.

Q. Did they ever do that way?

A. I don't remember whether they ever have or not. It has been so long since we have had any other method than the present one that I cannot remember.

Q. There was a different method in the earlier period?

A. I know there was in their purchases, Mr. Haines testified, but I cannot remember about the oil.

Q. If there was a different method you don't remember just when it was?

A. No, sir. The practice has been to make the contract and send a copy of the contract to the local manager and he orders his oil and takes care of the shipment.

Q. Will you give us the benefit of your judgment as to how much oil is covered by these yearly or two year contract- of yourself.

A. All of them?

Q. Yes.

A. Well, the amount is somewhere, about 70 million a year.

Q. You think that would cover all these companies?

A. I haven't looked it up for some time.

Q. What portion of that comes from the Standard?

A. Well, it varies from year to year. Sometimes the Standard Oil Company has fifty per cent; sometimes they have sixty per cent. There was one year when they only had one-third of the total.

Q. About what per cent have they now?

A. I should say they had about fifty per cent now.

Q. What company has the other fifty per cent?

4810 A. It is divided; the majority of the business is divided between the three large companies, the Sun Company, the

Gulf Refining Company and the Standard Oil. For instance, to give you an illustration: the public service business which amounts to about somewhere along about 15 million a year, is all with the Gulf Refining Company.

Q. I don't know just what you mean by that.

A. The public service corporation of New Jersey you asked about—the Essex and Hudson, that is one of the underlying companies.

Q. You have given me now your best judgment as to the quantity you buy?

A. The total quantity is somewhere around there.

Q. 70 million?

A. Yes, sir.

Q. Now this contract for the Des Moines Company, have you noticed a copy of it since you have been here?

A. No, sir.

Q. I think a copy of the contract has been introduced in evidence. There is nothing in the contract, is there, about the particular quality or kind of oil?

A. You mean as to specifications?

Q. Yes.

A. The only specification in there is the gravity.

Q. That is all that is in the contract?

A. Yes, but we have an understanding with the Standard Oil Company ourselves. They objected very strongly writing that specification in the contract. The reason of that was that the engineers of the company found some years back that the oil they were getting was not the best kind of oil adapted to the gas works, as I think

I explained a while ago. So they kept on investigating and finally developed a specification which is a specification covering the distillation of the oil between two points, and we started in to make the oil companies give us oil under these specifications. The Standard Company did do it. But by and by the specifications died out. All the small companies commenced to write to the Standard Oil Company and wanted the oil according to our specifications. Then the manager of the department came to me and wanted to know if I had any objection to not putting that in, so that he could say that he was not furnishing it under specifications. I asked him what his reason was and he said they could afford to carry that kind of oil for our business where it was large, but they could not afford to do it for a company using 100,000 gallons a year.

Q. One thing further to straighten out a confusion in my mind. You say that the reason that a small plant might get oil cheaper than the Des Moines is because the small oil men cannot compete for these large quantities, and therefore you are a little at the mercy of the concerns that furnish large quantities. Now how do you just help out in that? You don't mean that the Standard Oil people will sell oil to you cheaper than to Mr. Haines?

A. Yes, I do.

Q. Why?

A. Because I am so large a purchaser.

Q. Then the large purchase does have something to do with the price?

A. In a general way it does.

The MASTER: I have forgotten what the price is for Des Moines.

A. 2.80.

4812 Re-direct examination by Mr. GUERNSEY:

Q. You said you made your contracts in Des Moines; I wish you would state whether in the other places mentioned, Burlington, Omaha, Allentown, Harrisburg, Vicksburg, they are made in the same way?

A. They are, yes sir.

Q. Do you know why you did get lower bids in Omaha than you got at Des Moines, can you explain that?

A. I can't explain it, no, unless it is a little nearer.

Q. But the contracts are all made in the same way without going into details in each one of them?

A. Yes, sir.

Q. You stated with reference to this Philadelphia oil that it was piped in Texas to the seaboard and then was carried in ship loads to Philadelphia and then unloaded there?

A. Yes.

Q. And are these pipe lines and steamer lines owned by the companies that furnish the oil?

A. Yes.

Q. So that they pay no freight to anyone on this oil?

A. No.

Re-cross examination by Mr. BYERS:

Q. It appears here in the record from Brown's Directory that Knoxville down here, forty or fifty miles east of Des Moines on the Rock Island road gets its oil for considerably less than Des Moines; Maquoketa, as I remember it, for about 2.50 and Oskaloosa for a lower amount. Now of course you don't know anything

4813 about the specifications that they have in their contract?

A. No, sir.

Q. Or the quality of oil they get?

A. No, sir.

Q. Nor the quantity?

A. Except in a general way; they wouldn't get as much as the larger cities.

Q. Can you give any reason why the plant at Sioux City should pay three cents for oil, when it is bought and furnished and delivered to these other towns I have mentioned for 2.50 and Des Moines 2.80?

A. The only reason I can give is the reason I have already given. I cannot tell, General; we go into the market for oil at Sioux City and we ask all the available oil companies, the main companies that we know of and we accept the lowest bid.

Q. Why do you deal with a concern that will sell you oil for 2.48 delivered in Philadelphia from the fields of Oklahoma and Texas and which charges for Des Moines 2.8 for the same oil?

A. Conditions are entirely different.

Q. Is the freight charge higher for Philadelphia than for Des Moines?

A. I don't know.

Q. Don't you make any inquiry into those things?

A. What would be the good of it. They own their own pipe lines and their own business, and there isn't any freight rate as there is here. The oil is always bought and always has been bought delivered. Of course the freight rates are available.

The MASTER: The Standard Oil brings it around itself?

A. The Standard Oil does, and the National Refining
4814 Company does and the Sun Company does. They make us a price of so much delivered in our tanks, all three of those companies.

Q. It is a fact, that for instance Harrisburg gets .25 to .35 per cent of a lower rate than Sioux City; does that have anything to do with the rate of Sioux City; the fact that they sell it cheaper in some other places?

A. I don't think it has any bearing whatever. We have a little plant at Conshehocken and we buy that oil for 2.47.

Q. Where does it come from?

A. Somewhere around in that district—the oil comes from the Texas fields.

Q. Take Lincoln, Nebraska, can you think of any reason why oil should be higher at Lincoln, Nebraska, than it is at Knoxville east of here, shipped from the same field?

A. I don't know. I made an examination of these Nebraska prices. I notice that they were all higher than the Iowa prices.

Q. Is there some discrimination somewhere?

A. I can't tell you. I might ask myself the question why Omaha is 2.5 and Des Moines 2.80.

Q. I should think you would know all of that?

A. I can't tell. I invite bids; I can't make the oil companies—

Q. I should think if you were doing such a great kindness to the Des Moines consumer and the Des Moines Company through your relation with the U. G. I. you would not stand for that sort of a deal?

A. Well, I didn't know of those things at the time. I don't know of these sales until after they are made. I didn't know that Knoxville was getting a better price.

4815 Q. You must be a little bit behind in the oil business?

A. Not at all, sir. I have no means of knowing what the people of Iowa are paying for oil other than the companies we are interested in.

At this time an adjournment was taken until 1:30 P. M.

4816

1:30 P. M., FRIDAY, October 6, 1911.

J. A. PEARSON, being continued on cross examination by Hon. H. W. Byers, testified as follows:

Q. You said that you had a sort of a special understanding with the oil company on the side about certain specifications. Now does that agreement extend to keeping the price at which you get the oil from the public, keeping prices from the public?

A. The standard company you mean don't you?

Q. Yes.

A. The standard company have never placed any restrictions on us. Of course we try to respect their business as much as we can. In fact the prices given, you will notice of our figures are in the Brown directory.

Q. I was just going to ask if it was not, none of these concerns as far as I have been able to find controlled by the U. G. I., gives the price of oil?

A. That is the reason. We do it with all our purchasers, we do not talk about prices because we do not think it is fair to the company that gives them to us.

Q. They understand when they deal with you when you make these contracts that is the way you are conducting yourself with respect to the oil.

A. Yes. There is no understanding and there has never been any occasion for them to ask us to keep the prices quiet because we do it anyhow.

Q. I notice all these others publish it as stated in Brown's Directory?

Mr. GUERNSEY: Oh no, that is a mistaken, not all the other towns, we called attention to towns in Iowa that did not state it.

Mr. BYERS: But not exclusive water gas?

Mr. GUERNSEY: Oh yes.

Mr. BYERS: I don't recall any.

Q. It is pretty generally shown.

A. The method Mr. Brown employs in that I think he sends out his letters when he gets his statistics ready for his directory and those companies that will give him information he publishes it and those that won't he just leaves it blank. We don't do it.

Q. Have you a copy of one of your contracts now with you?

A. I have not any contracts, no. I have those bids you asked for.

Q. Yes, I want those too. This Great Western Oil Company, where is it located?

A. Don't it give it there General? I have forgotten, isn't it Cleveland?

Q. Yes. Was that the Cleveland Oil Company you referred to?

A. That other Cleveland concern is in there. That is the one, the one you have in your hand. You will find the signature of the company at the bottom.

Q. That is the National Refining Company?

A. That is the Cleveland Company.

Q. You don't seem to have any from the Standard here?

A. I can't find the bid of the Standard.

Q. What is the name of that other company you said you got the oil from at Philadelphia that you had a contract with now?

A. That is the Gulf Refining Company.

Q. I don't find any of those here.

A. They don't quote for this territory.

Q. You didn't find the Standard bid?

A. I think the Standard bid must be made verbally. They are very close to us there in New York. There were three other
4818 bids asked for, one from the Chanute Refining Company, Chanute, Kansas, one from the Indian Refining Company, Cleveland, and one from the Leader Oil Company, which are all small companies and none of them big which is in line with what I said, most too large for them.

Q. You stated, if I remember your testimony correctly that you used to buy nap-tha.

A. Yes, sir.

Q. How long since you have been buying nap-tha and this class of oil?

A. I think I testified it was about fifteen years ago.

Q. Take say, the last seven years, what has been the tendency in the price of oil, the kind of oil you have been buying for use in these numerous plants?

A. Well it has varied a good deal.

Q. I mean generally?

A. It has been up and down up to within—well up until the latter part of 1908. Since then the price has been a good deal lower.

Q. The general tendency has been down for the last seven or eight years?

A. No, not for that period. The price in Des Moines—

Q. What was the price seven years ago?

A. That would be a guess on my part, but I should say it was about four cents.

Q. You ought to be able to make a pretty close guess if you don't do anything but buy oil?

A. I buy a great many things besides oil.

Q. You are purchasing agent, you keep close track of these things you say about seven cents?

A. No, not seven cents, four cents.

4819 Q. What was it *sau* three years ago?

A. Three years ago would be 1908. I think the price in 1908 was three cents.

Q. More than that wasn't it?

A. No, sir.

Q. You think you bought it for use here three years ago for three cents, 1908?

A. Yes.

Q. Now what was it for 1909?

A. For 1909 it came under this contract.

Q. Which is 2.8?

A. Yes.

Q. So these years under the contract it has been lower than formerly?

A. For these years yes. The 1908 price went over into 1909. This contract was made as of June 1, 1909, so that the 1908 contract was for part of the year, covered part of the year of 1908 and part of the year of 1909.

Q. You think your bid from the Standard folks was a verbal bid?

A. As I do not find it I draw that conclusion.

Q. With whom did you negotiate?

— Mr. C. N. Higgins.

Q. Where is he located?

A. 26 Broadway New York.

Q. That is the headquarters of the Standard Enterprise?

A. Yes, sir.

Q. General offices of the Standard people?

A. That is my understanding, yes.

Q. How long have you been dealing with Mr. Higgins in the oil business?

A. Well I can't remember. I have only dealt with two men, the man who preceded him was a man by the name of William P. Howe.

Q. He is now dead?

A. He is dead and he was the first man I dealt with, he was made assistant treasurer of the Standard Oil Company and then Mr. Higgins took his place.

Q. Mr. Higgins, in addition to being sales agent is an officer of the Standard Company isn't he?

A. I don't think he is. I think he is simply the head of the sales department. I understand your word officer to mean executive officer. I don't think he is.

Q. I mean one of the directing officers?

A. I don't think he is, I think simply head of the sales department. He is an officer in a sense, just as I am an officer in a sense, but I am not an executive officer.

Q. You are not sure whether you have a written bid either at Philadelphia are you?

A. I am inclined to think the bid was verbal or I think it would be with these papers.

Q. Is the same thing true of that other company—I can't keep the name of the company in mind?

A. The Gulf?

Q. Is that the Gulf Refining Company, that the name of it?

A. Yes.

Q. That does not seem to be here either?

A. Well they would not bid on Des Moines. I would not ask them to bid on Des Moines.

Q. Do you think you have the original bid from them for Philadelphia?

A. For Philadelphia, I don't know, I think the Philadelphia

contract is so large the oil men generally come to see me and
 4821 talk prices with me and it very often happens, in two or
 three instances they will leave the price with me, we will
 discuss the matter and they will leave the price with me, put it down
 on a memorandum.

Q. Does the United Gas Improvement Company own its own tank
 cars for oil?

A. No. We have some tank cars but they are not used for oil.

Q. What are they used for?

A. They are used for handling bi-products, tar and tar oils in
 Philadelphia which we sell to the neighboring manufacturing plants.

Q. Do they have a name on the cars?

A. Yes, they are marked U. G. I., I think 18 of them, one to 18.

Q. Don't have any for oil?

A. Oh, no, not used for oil at all.

Q. I misunderstood you, I understood you this morning to say this
 oil to Philadelphia was handled in tank cars.

A. No, in our tanks, the storage tanks.

Q. This pipe line that you talk about from Kansas and Oklahoma
 is that the pipe line that crosses the southeast corner of this state?

A. Well I don't know the exact location, but in a general way I
 should say that was it. As I understand it they have a pipe line
 from Kansas clear into New York, that is have pumping connec-
 tions.

Q. Serve both the Standard and this Gulf Company?

A. No, the Gulf lines go to Port Arthur.

Q. The pipe line is owned by the Standard?

A. No, I think by the Gulf Line, not the Standard, the pipe line
 from Oklahoma to Port Arthur, Texas.

Q. I am speaking of this one down here?

4822 A. This one I think belongs to the Standard, but the Gulf
 Refining Company have not what may be termed a conti-
 nental line. That is do not bring oils from the Texas fields to Phila-
 delphia by pipe line, their method is by steamer.

Q. By boat and cars if necessary?

A. By boat and cars.

Court: Steamer or sailing vessel?

A. Use what is called a tank steamer, regular steamer with large
 tanks underneath.

Q. Built on purpose to haul oil?

A. Built purposely for oil, yes. Here is a copy General that
 might interest you, copy of my request for the bids which shows the
 specifications for oil. That is for this Des Moines business.

Court: How many gallons or oil do they use here?

A. Runs about two and a half millions a year I think.

Q. I suppose after you get in these bids then you make the best
 contract you can?

A. The bids are then presented to the board of the Des Moines
 Gas Company with my recommendations. Then the contract is
 signed.

COURT: In other words you don't have authority to deal without referring it to the Board?

A. Under our system I have authority to make all purchases myself of any concern that we buy goods from except where I bind the company for a period of time. All these have to be submitted to the board for approval so they can be recorded in the minutes.

Q. These bills are payable according to the bids monthly?

A. Monthly on the invoices of the preceding month.

Q. First of every month?

A. Yes, well it is generally about the 15th an average time.

Q. None of these of which you have furnished me copies
4823 here, none of these bids were accepted.

A. They were all too high as you will notice. In one of the cases the bid was reduced after the written bid was sent in. That was the bid of the Gas Oil Company. You will see a little note there on the pink sheet. Col. Pratt who used to be here, was president of that company and very anxious to get this business and came over to see me and I told him I thought his price, his bid too high and then he reduced it from 3.10 to 2.96 I think it is.

Q. Does this oil have a market price? Any of it?

A. You mean a quoted market price. No, sir. Nothing is quoted but crude petroleum.

Q. No such thing as market price on refined oil used for manufacturing gas?

A. No, sir.

Q. So the only guide you have is to get it just as low as you can?

A. Get the bids, yes, and buy as cheap as I can.

Q. Now just a word firther, about that understanding you had with these people about the specifications. Is that just an agreement between you and Mr. Higgins?

A. Yes, an agreement between us. He wanted to be in position to say he didn't sell specification oil, that was about the amount of it.

Q. The reason he wanted to be in that position was so he would not have to cut his prices or make agreements that would be burdensome?

A. No, not his price, as I explained to you when we began specifications he agreed without any question, Mr. Howe did before him. We submitted specifications to Mr. Howe and asked him if there was anything in that specification he would object to. He said no he thought the refiners were fully able to prepare oil that way.
4824 Then shortly after that Mr. Higgins succeeded him, then as I said -while ago the specifications commenced to get out through the gas industry and small concerns buying 100,000 gallons went to Mr. Higgins and told him they wanted the same oil we were getting. He said he could not afford to carry 100,000. They shipped from refineries all over the country, might have a car of oil at Whiting or in Kansas City, but usually business in Iowa is shipped from Sugar Creek.

Q. The oil they would sell on your specifications would be a grade of oil better than you would ordinarily get?

A. In our judgment it would, yes.

Q. That is to say now if it was once advertised that you were buy-

ing a certain quality of oil at a certain price they would have to give the same price to everybody and the same kind of oil?

A. Yes.

Q. He didn't want to do that?

A. Yes.

COURT: Do they live up to it to your understanding?

A. Yes, sir. We have a method, your honor, Mr. Haines takes samples of the oil which comes in, then it is analyzed to show whether it conforms to these specifications and a copy of these analyses are sent to me. We keep them all in a book one sheet for each copy and if we find the oil is not conforming we take it up with Mr. Higgins.

COURT: Is this crude oil or refined?

A. It is a distillate from crude oil.

COURT: Not crude oil itself?

A. No, sir. Crude oil is oil just as it comes out of the ground originally, the ordinary crude petroleum.

Q. What is crude oil worth as you call it?

4825 A. It varies in every field in the country. Pennsylvania oil, for instance, which is the highest grade oil there is runs about, I have not looked up prices lately, is over a dollar a barrel and some oils down in Texas and Indian Territory that sell for 40 or 50 cents a barrel. We do not bet any Pennsylvania oil for the reason, as I explained to you awhile ago, it is too valuable for other things. Gas companies won't pay for it.

Q. I don't know as I got exactly the right understanding of your testimony, but there are grades of oil then used in the making of gas, that is some gas companies use a lower grade than others, is that right?

A. Well I presume that must be so, because of the attitude the Standard Oil Company took on this specification question.

Q. And they pay more for a lower grade than you do for a higher grade, that is your opinion?

A. I don't know whether they pay any more in cents per gallon, but I don't believe they get as good results with the oil they use as we do.

Q. Well but they do pay more per gallon don't they, is that your information about it?

A. Well according to this Brown's Directory that you spoke of this morning some of them pay less.

Q. But you don't know anything about the quality they are getting?

A. No, sir.

Q. But there are grades of oil that could be used for making gas, that is the point I want to be sure about?

A. Yes, sir.

Q. Do you know anything about the arrangement for the freight on this oil?

A. No, sir. The oil is always bought delivered.

4826 Q. Is that true from all these different companies?

A. I never have heard of an oil contract where the oil was bought at the point of shipment. I never made one. You can easily see that you get a better parallel of price if you are asking a

man in one place and another man some other place and another man some other place to quote because you bring them altogether at the point where you are going to use it. You get your bids in parallel.

Q. You don't know anything about what it cost the Standard people to put oil in here?

COURT: No one but these oil companies has facilities for shipping it have they?

A. No, sir; I don't think anybody else, never heard of anybody else, they all have their own tank cars.

COURT: Except where they ship by barrel?

A. Yes.

Q. Where is Sugar Creek?

A. Kansas City as I understand or near there. It is a big refinery that the Standard Oil Company built after the development of the Kansas field. They wanted to be near the source of supply. I understand they put pipe lines up through Kansas and brought the oil down there.

Q. Don't have any pipe lines up here?

A. Not that I know of.

Q. It is not piped in here?

A. I don't think so. I think the only pipe line in this section is the one that runs over to Whiting.

Redirect examination by N. T. GUERNSEY, Esq.:

Q. Are these papers marked complainant's Exhibits 78 to 4827 82 inclusive, the papers you produced and handed to General Byers just a few moments ago?

A. Yes, sir.

Q. I understood you to say Exhibit 78 is the request for bids you made?

A. Yes, sir.

Q. What do these names mean down the side here, for instance Sus, Standard and so on?

A. They are the names of the people whom I asked to bid on the oil.

Q. Exhibit 79 seems to be in the form of a contract. Please state whether or not that was the form in which this bid was submitted to you?

A. It was.

Q. Now there is one other thing here I see that Exhibit 80 is dated January 7, 1909, which is prior to the date of your invitation for bids. How do you explain that?

A. My recollection of that is, based on similar cases is that the Sun Company has a habit of writing me a letter and asking me when I will be in the market for oil and I give them a list such as they have quoted on there of points that are coming up say within the next six months and in this case the Sun Company have evidently quoted on them all at that time and I presume no doubt at the time the Des Moines business was ready to close I asked the Sun Company if they could make me any lower figures than this figure they gave



COPY

THE UNITED GAS IMPROVEMENT CO.

| | 1 yr. | 2.96 | Verbal |
|------------|--------|------|--------|
| ✓ standard | 18 mo. | 2.80 | |
| SUM | | | |

Compliments Exhibit No 78
1076/11

11/9/201

Indian Ref. Co.

Leaue Oil Co.

3 yrs 6,600,000
option clause

Purchasing Agent.

me in January. I notice in here at the top is "would like Atlanta" that is a lead pencil memorandum and I infer from that these were the best prices and would like to have the Atlanta business when it came along, probably a telephone message.

Q. I notice in this Sun company bid that the first two 4828 items or bids ar- Burlington, Iowa, 2.86 cents and Des Moines, Iowa, 3.30 cents?

A. Yes.

A. A difference of 44 points. Is that illustrated of the difference of the prices in different places?

A. Between Burlington and Des Moines?

Q. I don't mean whether that is a fair difference between those two places, but simply whether that bid, different prices ar the two places approximately close together illustrates the fact you get bids for different prices at different places?

A. Yes, there is nothing more variable or uncertain than these oil prices.

Mr. GUERNSEY: Complainant offers and reads in evidence complainant's Exhibit No. 78 as follows:

(Here follows photos, marked page 4828½.)

4829 COMPLAINANT'S EXHIBIT No. 78. 10/6/11.

Copy.

Office of Purchasing Agent The United Gas Improvement Co.

APRIL 29, 1909.

| | | |
|---------------------------|------|--------|
| Sun | 3.10 | |
| 1 yr. | 2.96 | |
| Standard—18 mo. | 2.80 | Verbal |
| | | Verbal |
| Gas Oil Co. [3.10]*..... | 2.96 | |
| Chanute Ref. Co..... | | |
| National Ref. Co..... | 2.85 | |
| Indian Ref. Co..... | | |
| Great Western Oil Co..... | 3.40 | |
| Leader Oil Co..... | | |

*Erased in copy.

Please quote me your best price per gallon, delivered in tank cars,
f. o. b. Des Moines, Ia., on 2,200,000 gallons, 10%
3 yrs. more or less, of Gas Oil, to be required during the
6,600,000 contract period beginning June 1, 1909 and ending
option clause. May 31, 1910; oil to conform to the following speci-
fications:—

85% to distill off between 400° and 700° Fahrenheit; said oil not
to carry to exceed .5% of Sulphur and not more than 2% of coke.

Bids to be in my hands not later than Thursday, May 6.

Yours truly,

J. A. PEARSON,
Purchasing Agent.

4830 Complainant offers and reads in evidence complainant's
exhibit No. 79 as follows:

872.

Contract.

The U. G. I. Co.
Filed
Jun-4, 1909
Office of the Third
Vice President.

Aggreement entered into this 3 day of May, 1909, by and between
the Des Moines Gas Co., of Des Moines, Iowa, party of the first part,
and the National Refining Company of Cleveland, Ohio, party of
the second part;—

4830^a

Complainants Exhibit No 79

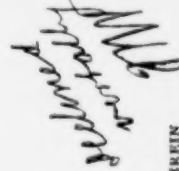
872

CONTRACT.

AGREEMENT

Entered into this 3 day of May 1909 by and

between The Des Moines Gas Co.,

of Des Moines, Iowa, party of the first part, and
THE NATIONAL REFINING COMPANY, of Cleveland, Ohio, party of the
second part:—


WITNESSES

The party of the first part hereby agrees to purchase of the party of the second
part all the Gas Oil used in their plant located at
Des Moines, Iowa, for the period of one year from the date of this
agreement.

ESTIMATED

Amount of Gas Oil used by the party of the first part for said
period of one year being maximum of 2,200,000 gallons 10% more or less.
and minimum of gallons.

IN CONSIDERATION

Of the above agreement, the party of the second part hereby agrees to furnish to
said party of the first part their requirements of Gas Oil for
said period of one year as estimated above.

QUALITY

Of said Gas Oil to be firstclass; and

PRICE

To be 28 1/2 cents per gallon, in tank cars, less freight charges
to Des Moines, Iowa,

TERMS

The terms of sale are Net cash payable first of the month
covering previous month's sales.

THIS CLAUSE
IF NOT DESIRED
RULE OUT EACH
LINE

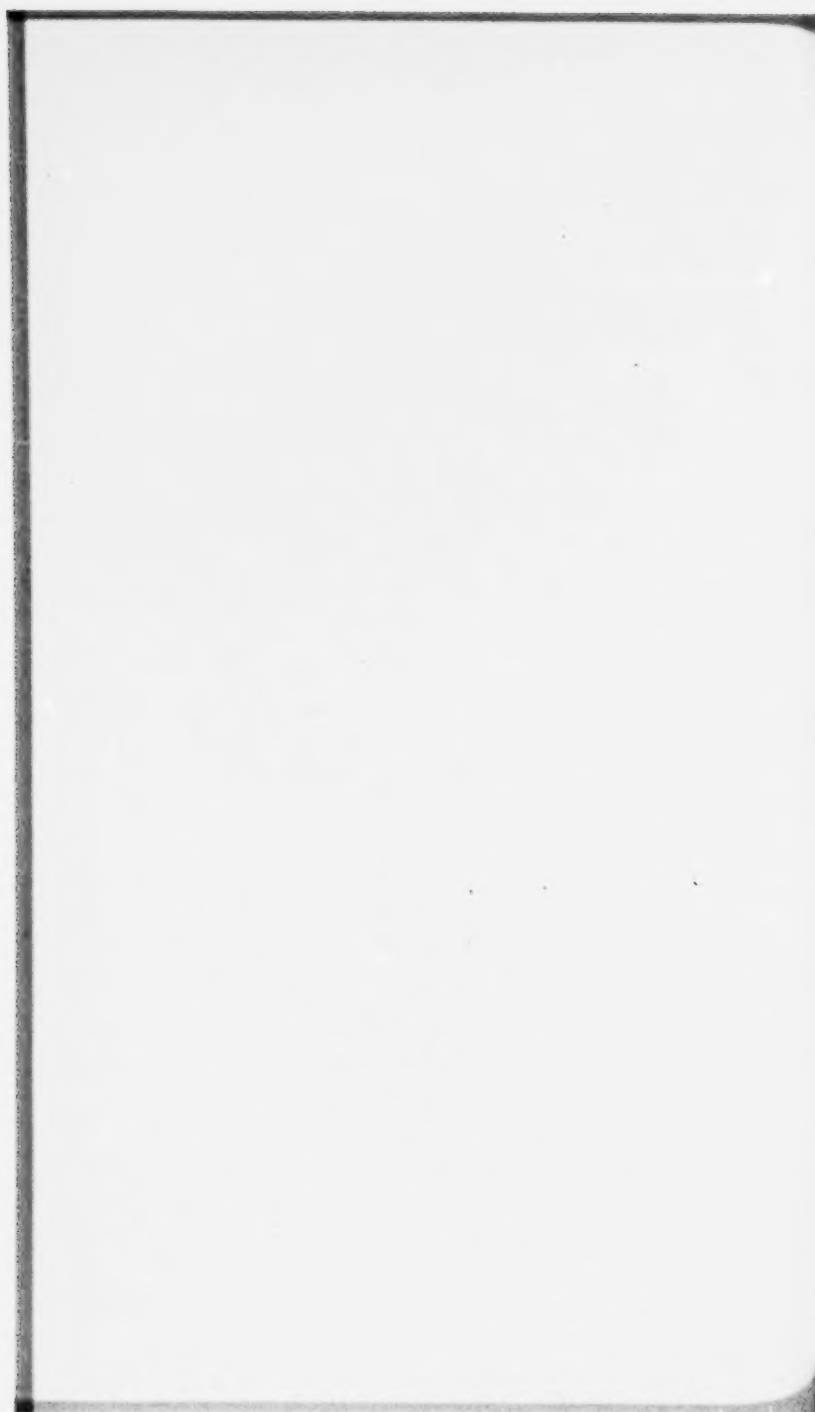
~~The above price is based on the present market price of Ohio Crude Oil,~~
which is cents per barrel (42 gallons bulk at well constituting a
barrel). For each and every reduction of 5 cents per barrel in the price of Crude
Oil, above price to be reduced 1/4 cent per gallon, likewise for each and every
advance of 5 cents per barrel in the price of Crude Oil, the above price on

Oil to be advanced 1/4 cent per gallon. The market price on
Crude Oil ~~governing at the time shipment is made from refinery of said party of~~
~~the second part.~~ IN EVIDENCE OF THE ABOVE MUTUAL AGREEMENT, we hereto affix our respective signatures

THE NATIONAL REFINING COMPANY

Per





Wherein the party of the first part hereby agrees to purchase of the party of the second part all the Gas Oil used in their plant located at Des Moines, Iowa, for the period of one year from the date of this agreement.

Estimated amount of Gas Oil used by the party of the first part for said period of one year being maximum of — gallons and minimum of 2,200,000 gallons 10% more or less.

In consideration of the above agreement, the party of the second part hereby agrees to furnish to said party of the first part their requirements of Gas Oil for said period of one year as estimated above.

Quality of said Gas Oil to be first class; and

Price to be 2 85/100 cents per gallon, in tank cars, less freight charges to Des Moines, Iowa.

Terms: The terms of sale are net cash payable first of the month covering previous month's sales.

In evidence of the above mutual agreement, we hereunto affix our respective signatures.

_____,
_____,
NATIONAL REFINING COMPANY,
Per FRANK B. FRETTER, *Secy.*

(Here follows photo marked page 4830a.)

3080 **DES MOINES GAS CO. VS. CITY OF DES MOINES ET AL.**

4831 Complainant offers and reads in evidence Complainant's Exhibit 80, as follows:

201.

Sun Company, Real Estate Trust Building.

PHILADELPHIA, *January 7th, 1909.*

T. U. G. I. Co.

Filed

Jun. 4 - 1909

Office of the Third

Vice President.

Would like Atlant.

Mr. J. A. Pearson, Pur. Agent United Gas Improvement Co., Broad and Arch Streets, Philadelphia.

DEAR SIR: I am pleased to quote you on crude oil (which is our Stoy crude) to be shipped from Stoy, Ills., the following rates:

| | | |
|--------------------------|------|-------|
| Burlington, Iowa | 2.86 | cents |
| Des Moines, Iowa | 3.30 | " |
| Janesville, Wis. | 2.92 | " |
| Sioux City, Iowa | 3.62 | " |
| Sioux Falls, S. Dak..... | 3.69 | " |
| South Bend, Ind..... | 2.80 | " |
| Atlanta, Ga. | 4.46 | " |

Yours truly,

President.

J. N. P. T.

(Here follows photo marked page 4831a.)



4831a

J. M. Dew
President
Arthur E. Dew
First Vice President

PRODUCER, REFINER,
SHIPPER AND EXPORTER OF
PETROLEUM AND ALL
ITS PRODUCTS.

Sun Company

Real Estate Trust Building

UNLESS OTHERWISE SPECIFIED QUOTATIONS ONLY
GOOD FOR ACCEPTANCE BY RETURN MAIL.
ALL CONTRACTS AND AGREEMENTS ARE CONTINGENT
UPON STRIKES-ACCIDENTS AND OTHER OCCUR-
RENCES BEYOND OUR CONTROL.

Cable Address
Philad.

Code Word *Western Union*
Light
A. D. C. 4th Edition

The U. G. I. Co. *Philadelphia*
FILED
JUN 14 - 1909
Wilmington Atlanta
OFFICE OF THE THIRD
VICE PRESIDENT.

January 7th, 1909.

Mr. J. A. Pearson,

Pur. Agent: United Gas Improvement Co.,

Broad and Arch Streets, Philadelphia.

Dear Sir:

I am pleased to quote you on crude oil (which is our Stoy crude.)
to be shipped from Stoy, Ills., the following rates:

| | | | | |
|---------------|--------|---|------|-------|
| ✓ Burlington, | Iowa | - | 2.86 | certs |
| Des Moines, | Iowa | - | 3.30 | " |
| ✓ Janesville, | Wis. | - | 2.92 | " |
| Sioux City, | Iowa | - | 3.62 | " |
| Sioux Falls, | S. Dak | - | 3.69 | " |
| South Bend, | Ind. | - | 2.80 | " |
| Atlanta, | Ga. | - | 4.46 | " |

Yours truly,

President.

B W BROWN, Print & Press

CABLE ADDRESS
"GREWES OIL"
A B C CODE 4TH EDITION.BELL BROAD 60
CUY CENTRAL 89OFFICE & WAREHOUSE,
E. 37TH ST SE & ERIE RAILROADREFINERIES:
MARIETTA, O.
RAYMILTON, PA.

6/1

Mr. J. A. Pearson, Pur. Agt.

New Gas Light Co.,

Philadelphia, Pa.

Dear Sir:-

6/3/19

ALL QUOTATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ADDRESS ALL COMMUNICATIONS TO THE COMPANY.

Compliments of
The Great Western Oil Co.
107 W. 15th St.
516

Refiners and Manufacturers of

Illuminating and Lubricating Oils

SPECIALTIES:
PALACELITE OIL,
NAPHTHA & GASOLINE
GREASES, WAX, ETC.

Cleveland, Ohio

THE GREAT WESTERN OIL CO.
JUN 7 - 1909
OFFICE OF THE TREASURER
AND PRESIDENT

May 11, 1909.

OFFICE OF THE
TREASURER
AND PRESIDENT

Replying to your several letters of the 29th ult. we take pleasure in quoting you to day for a years contract. Prices subject to change without notice until your contract is accepted by us as follows:

On Gas Oil per your specifications 85° $\frac{1}{2}$ Distill between 400° & 700° F.. Oil not to carry to exceed 5% sulphur and not more than 2% coke.

| | |
|--|------------------|
| ✓ 275,000 gallons for Janesville, Wis. | ✓ 4.02 per gall. |
| ✓ 450,000 " " Burlington, Iowa | 3.40 " " |
| ✓ 250,000 " " Sioux Falls, S. Dakota. | 4.02 " " |
| ✓ 130,000 " " City, Iowa. | 3.66 " " |
| ✓ 220,000 " " Des Moines, Iowa. | 3.40 " " |

All in tank cars, f.o.b. the above points. We hope that our figures are low enough to secure the business, and if favored with same will give prompt shipments.

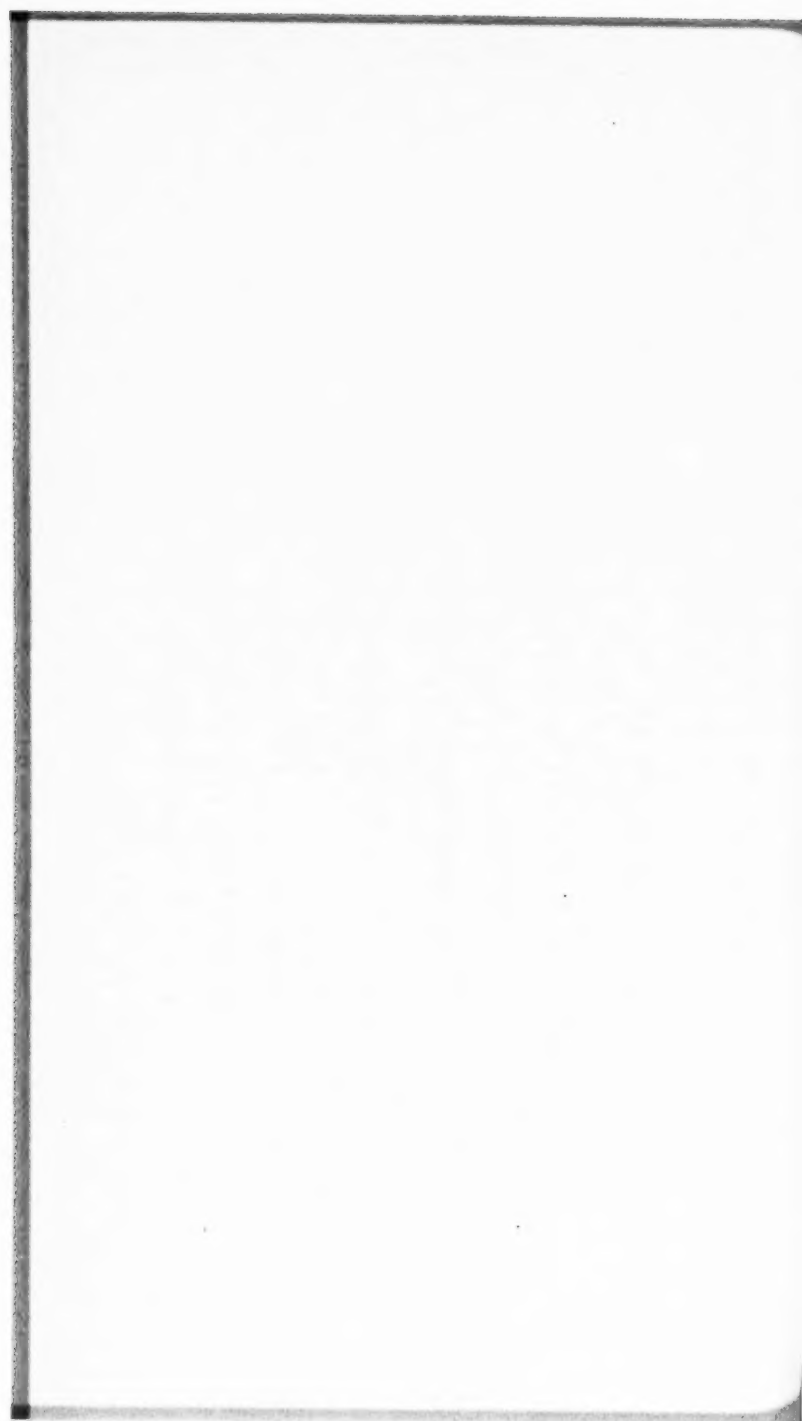
Yours truly,

THE GREAT WESTERN OIL CO.

HK.

Quotation

Wm. A. Hearley
Secy.



4832 Complainant offers and reads in evidence Complainant's Exhibit No. 81 as follows:

1516.

The Great Western Oil Co.

Received May 14 A. M., 1909. Purchasing Dep't.

CLEVELAND, OHIO, May 11, 1909.

The U. G. I. Co.
Filed
Jun-7, 1909.
Office of Third
Vice-President.

Declined 6/3/9.

Mr. J. A. Pearson, Pur. Agt. New Gas Light Co., Philadelphia, Pa.

DEAR SIR: Replying to your several letters of the 29th ult. we take pleasure in quoting you to day for a year's contract. Prices subject to change without notice *without notice* until your contract is accepted by us as follows:

On Gas Oil per your specifications 85 to Distill between 400 & 700 F. Oil not to carry to exceed 5% sulphur and not more than 2% coke.

| | | | | |
|-----------|---------|----------------------------------|------|-----------|
| | 275,000 | gallons for Janesville, Wis. . . | 4.02 | per gall. |
| | 450,000 | " " Burlington, Iowa. . | 3.40 | " " |
| | 250,000 | " " Sioux Falls, S. Dak. . | 4.02 | " " |
| 1,300,000 | 130,000 | " " " City, Iowa. . . | 3.66 | " " |
| 2,200,000 | 220,000 | " " Des Moines, Iowa. . | 3.40 | " " |

All in tank cars, f. o. b., the above points. We hope that our figures are low enough to secure the business, and if favored with same will give prompt shipments.

Yours truly,

THE GREAT WESTERN OIL CO.
M. T. HEARLEY, Sec'y.

H. K.
Quotation.

(Here follows photo. marked page 4832a.)

3082 DES MOINES GAS CO. VS. CITY OF DES MOINES ET AL.

4833 Complainant offers and reads in evidence complainant's Exhibit No. 82 as follows:

988.

Gas Oil Company, 613 New York Life Building.

Received May 6, A. M., 1909. Purchasing Dep't.

CHICAGO, ILL., May 5th, 1909.

The U. G. I. Co.

Filed

Jun- 7, 1909.

Office of the Third
Vice-President.

E. T.

Declined 6/3/9.

Mr. J. A. Pearson, Purchasing Agent, Des Moines Gas Company,
Philadelphia, Penn.

DEAR SIR: Complying with your request of April twenty-ninth,
we are pleased to make you the following prices on gas oil as per
your specifications:

2,200,000 gallons, 10% more or less, of refined gas oil to be used
during contract period beginning June 26th, 1909, and ending June
25th, at 3.1¢ per gallon, f. o. b. Des Moines, Iowa.

Yours very truly,

GAS OIL COMPANY.

S. C. SHOFFEN, *Manager.*

(Here follows photo, marked page 4833a.)

11822a

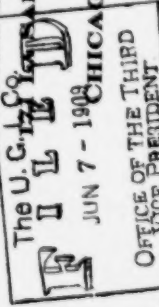
TELEPHONE CENTRAL 6819

4833^a
Compliments Exhibit No 82
1076/11 988

GAS OIL COMPANY

613 NEW YORK LIFE BUILDING 6 A.M. 1909

The U. C. T. Co. 111 LEXINGTON ST.



WE PAY SPECIAL ATTENTION TO
THE REQUIREMENTS OF
GAS COMPANIES

PURCHASING DEPT
May 5th, 1909

190

Mr. J. A. Parsons, Purchasing Agent,
Des Moines Gas Company,
Philadelphia, Penn.

RECEIVED OFFICE OF THE
THIRD VICE PRESIDENT

MAY - 6



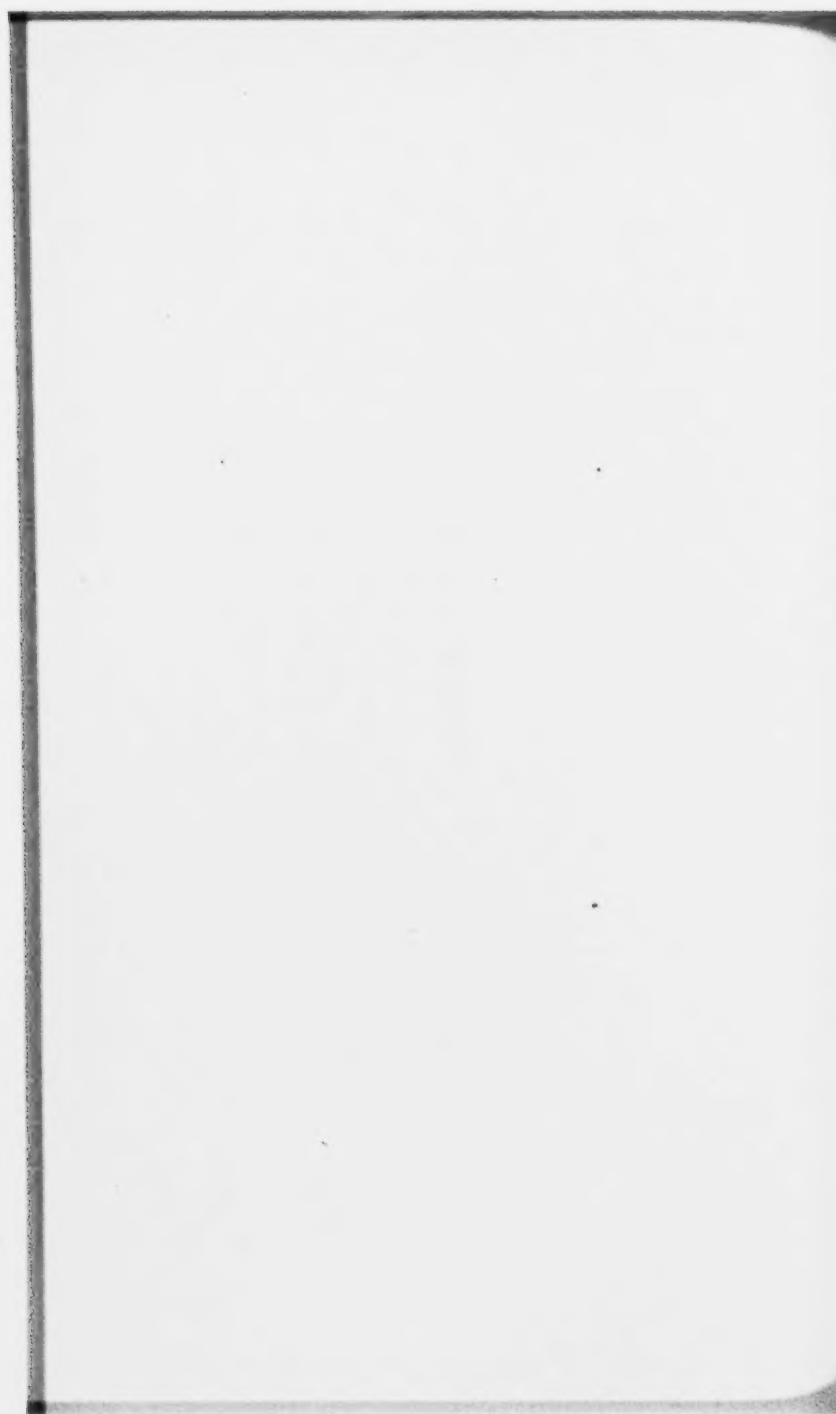
Dear Sir:-

Complying with your request of April twenty-ninth,
we are pleased to make you the following prices on gas oil as
per your specifications:

2,200,000 gallons, 10% more or less, of refined gas
oil to be used during contract period beginning June 26th, 1909
and ending June 25th, 1910, at 3.1 ¢ per gallon, f.o.b. Des Moines
Iowa.
Yours very truly,

GAS OIL COMPANY

Blushoff
Manager



4834 Recross-examination by Hon. H. W. BYERS:

Q. Did you bring in that Sun bid, the bid from the Sun Company because you thought it was a fair comparison of the price of oil?

A. You mean today.

Q. Yes, in this case.

A. I found these papers in among my papers on the subject of Des Moines oil.

Q. You knew when you brought that in here that the Sun Company to get this oil here at all would have to ship it by boat probably and then by freight all the way from the Atlantic coast to Des Moines in order to compete with the Standard people who would ship it right up from Kansas City?

A. No, sir.

Q. How could the Sun Company get it here?

A. What I said about the Sun Company bringing oil up the Atlantic coast in tank steamers was correct. And in addition to that and this is what differentiates the Sun Company from the Gulf Company, the Gulf Company only have their oil in Texas, but the Sun Company have oil fields in Illinois and Ohio, which makes them available bidders for Des Moines.

Q. Is there any oil shipped here from Illinois by the Sun Company?

A. The contract of 1907 and 1908, was with the Sun Company for Illinois crude oil.

Q. But they are not shipping any oil from Illinois now are they?

A. I don't know, they are not shipping here.

Q. That is what you offered that for as a bid that you got in 1909 wasn't it?

A. Yes. At the time this contracts was made.

Witness excused.

Here the further hearing was adjourned until 9:30 A. M. Friday October 13, 1911.

4835

Friday Forenoon Session.

OCTOBER 13, 1911—at 9.30 a. m.

Counsel for the respective parties all present.

Testimony on part of complainant, in rebuttal, resumed as follows:

W. J. HAGENAH, re-called on part of complainant in rebuttal, examined by N. T. Guernsey, Esq., testified:

Q. Mr. Hagenah, have you recently made an examination of the records of the water department of the city of Buffalo showing what records that department has with reference to the cost of laying water mains in the streets of the city of Buffalo for the five years preceding 1907?

A. I have.

Q. Now this examination covered what years?

A. The years from 1902 to 1906, inclusive.

Q. You have a memorandum here, and I wish to ask you some questions with reference to that to illustrate the character of this examination. I see you have under 1902, under the column headed "Location Street"—now what does that column indicate?

A. The sheet shows a tabulation. The first column of the sheet shows the location on the street in which the particular construction work was undertaken. These are arranged in alphabetical order.

Q. Now in that column did you take every job of laying water pipe that was done by the Buffalo Water Department during that year, 1902?

A. I took all the work orders as shown on their pipe extension record, classified them according to the size of pipe, and eliminated from my calculation those particular jobs which showed extraordinary expenditures, such as a large amount of tunneling, going under extensive railroad yards or blasting, or construction expenditures in connection with reaching the proper depth of the mains about the Erie Canal and the harbor work.

Q. Then you took every job except those of the classes you have indicated that involved extraordinary and unusual expense?

A. Yes, sir; every work order appearing on their books except extraordinary jobs which are apparent from an examination of the record.

Q. Now, taking the first of these as an illustration, I find under "Location" Amber Street; that is the street where the pipe was laid?

A. Yes, sir; that indicated that a six inch main, according to this table was—

Q. No, that don't; I simply ask as to this column; that indicates simply the street?

A. Yes, sir.

Q. I want to take one column at a time. Now the next column shows the size of pipe?

A. Yes, sir.

Q. Now, taking Amber Street, that was what size?

A. Six inch.

Q. You get that from the books of the Buffalo Water Department?

A. Yes, Buffalo Water Works.

Q. The next column shows the total length of pipe laid?

A. Yes.

Q. Of how many feet?

4837 A. 605 feet.

Q. That you got from the books?

A. Yes, sir.

Q. Now you have two columns here that follow, the first being headed "Length Street Main" and the second "Length Pipe to Hydrant." Now take these columns and are they found from the books, or are they determined as a matter of computation?

A. They are determined as a matter of computation from the figure in the third column showing total length of pipe. The charge on the books of the Water Works shows the total pipe—

Objected to on part of defendants as being immaterial and not proper rebuttal.

(Answer continued)—shows the total length of pipe charged to that job. There are a number of hydrants attached to the main and since the main is laid somewhere between the curbs of the street and the hydrant is located in the curb, I deducted from the total length of pipe charged to the job the length of pipe which would reach from the main in the street to the hydrant. The books show the location of the pipe with respect to the distance from the curb or line where the hydrant was placed and I deducted from the total length of pipe the amount necessary to cover from the main to the hydrant for the number of hydrants placed.

Q. In that instance, what was the distance from the main to the curb line?

A. The distance was nine feet and there were two hydrants placed, so I deducted that amount from the length of pipe.

Q. What is the size of pipe running from the main to the hydrant as compared with the six inch main?

A. It appeared to be six inch pipe.

4838 Q. In that way you obtained your length of the street main, 587 feet, and your length of the pipe to the hydrant. What difference is there between water works construction and gas construction that led you to make this computation so as to take out the hydrants?

Defendants interpose the same objection and the further objection that the witness has not shown himself competent to testify.

Q. I will go back a little. Do you know whether in the laying of gas mains they have hydrants at the side of the streets and pipes running from the mains to the hydrants?

Defendants interpose the same objection.

A. They have not, and I made the deduction to secure the cost which would be reliable for the purpose of comparison.

Q. In other words, you deducted it because that was an item of expense appearing there that would not be incurred in laying gas mains?

A. Yes, sir; peculiar to the water industry.

Q. If you had left out any, of course your unit prices would have been higher?

A. It would show a greater cost for pipe.

Q. Now what was the next item of cost that you found on these books, or the first item of cost which you found—you have given us the total length of pipe and number of hydrants and the distances between the pipe and the curb which enabled you to get the length of the street main—what was the first item of cost you found on the books there?

A. The first item was the cost of pipe.

Q. The cost of the pipe itself?

A. Yes; and shows the total cost for the total amount of
4839 pipe charged to that particular job. Since I had apportioned the pipe length between that part representing the main and that part leading to the hydrant, I apportioned the total cost of the pipe on the same basis; that is, to secure the cost of pipe per foot, and charged to the street main proportion the cost of the proper length of the pipe, and equally to the hydrant proportion the cost of that part represented by the number of feet reaching from the main to the hydrant.

Q. Then under the *the* cost of pipe you have two sub-heads, one street main, and the other hydrants. As to each one of those jobs did you apportion that cost so as to get the actual cost of the street main without the expenses of running to the hydrant?

A. That was my intention in making the apportionment shown on this table.

Q. In this connection, can you tell us where the foundries are from which the Buffalo water pipe comes?

A. I made several inquiries in regard to that from different parties connected with the water service and in the legal department and was informed the pipe was purchased from the plants of the United States Iron Pipe Foundry located in the city of Buffalo.

Q. You learned there were these pipe foundries in the city there?

A. Yes, sir.

Q. Now what was the next item of cost shown by the books in this department in connection with this matter of pipe laying?

A. The cost of specials, charged to the extensions in each case.

Q. What did you do with reference to dividing that so as to eliminate the specials that were involved in the hydrant connections?

A. The cost of the specials, just like the cost of the pipe, appeared
4840 on the books in one single charge, although there were detailed items, they were all charged to the cost of the main. I examined the individual charges for specials and deducted from the total as shown by the column on the books those specials which were installed for use in connection with the hydrant. So that these two columns here show first the cost of the specials used in connection with what might be strictly the water works main, and second, the cost of specials which were incident to the hydrant service.

Q. Now did the books themselves, without going beyond them, distribute this cost of specials so that you could tell what amount was the cost of specials that were incident to the mains themselves, without going beyond the books.

A. They did not distribute the total, but they showed the individual charges on the books. I could generally tell from looking at the individual item appearing — the books as to whether the special in question pertained to the hydrant service or to the main, and in a number of instances where I was not clear, I inquired of members of the engineering department, so that this apportionment is my own work.

Q. It is then as to this job the amount of specials for the street main work and the amount for the hydrants?

A. It is as per my apportionment.

Q. The aggregate being the aggregate shown on the books?

A. Yes, sir.

Q. Here again, if you had simply taken what the books show, the result would have been to increase the unit cost per foot as you finally reached it?

A. Yes, sir.

Q. What was the next specific item of cost which appeared on the books of this water department?

A. The cost of the valves charged to the job.

4841 Q. That was shown separately; you took that as to each particular job?

A. Yes, sir.

Q. Now what was the next item that was shown?

A. The cost of the hydrants which were purchased and installed in connection with this main extension.

Q. And this memorandum that you took shows that as to each one of those things?

A. Yes, sir, each extension is separately noted here.

Q. Then what was the next item shown by the books?

A. The cost of lead used in making the joints.

Q. That was shown as to each job?

A. Yes, sir; exactly as shown on the books.

Q. What was the next item?

A. The cost of gaskets.

Q. That was shown as to each job?

A. Yes, sir.

Q. What was the next item?

A. The cost of tile used.

Q. As to that there were some jobs which involved no expense on that account?

A. Yes, sir.

Q. Also some involved no valves or hydrants?

A. Yes, sir.

Q. And apparently some involving no gaskets?

A. Yes, sir.

Q. You took this cost of tile in your memorandum wherever that appeared on the books?

A. Yes, sir.

Q. Do you know why they used tile?

4842 A. It occurred to me that there might be some question as to how the cost of tile came into the cost of the main, and I made some inquiry about that. The tile cost is incurred through the water main disturbing some parts of the sewer system. In extending the water main they would possibly have to take off some corner of the sewer, and the tile used is charged to the cost of the water main extension.

The MASTER: That wouldn't have anything to do with laying mains?

A. Only as it occurs in connection with laying mains in large cities.

Q. It would be only an incidental expense involved in doing the work?

A. Yes, sir. It makes it more expensive in large cities than in virgin soil.

Q. The next heading is what?

A. The cost of pavement.

Q. That was a heading which appeared on the books there?

A. Yes, sir; there were two columns, one showing the square foot area of the pavement and the other the cost of the pavement.

Q. I see for the year 1902 there appears to be nothing in the square foot area?

A. Nothing was entered on the books. This form was taken from the books, with the exception of the portions I have referred to.

Q. I notice that on cost of pavement there only appears to be about five items in the aggregate of perhaps 25 or something like that.

A. Those were the only ones appearing on the books.

Q. Now what was the next item on the books?

A. The labor, charged to the extension in each case.

Q. And in this memorandum you have in each instance
4843 put down the labor charge as it appeared there.

A. As it appeared on the books, yes sir.

Q. I see for the year 1902, the column headed "Extra Labor"; that was a classification shown on the books there?

A. Yes, sir; that was a classification shown on the books, but there were no charges in that column for that year. The form is taken from the books.

Q. The next column is what?

A. The cost of coke.

Q. There again you got your item where?

A. That information is as shown by the books.

Q. The next column is what?

A. The cost of teaming.

Q. There again I suppose you took what the books show on that?

A. Yes, that is what the books show—only a few charges for teaming during that year.

Q. The next column is what?

A. This column shows the cost of blasting. There appears only one in connection with removing certain rock on one street.

Q. The final column is what?

A. There is a column for miscellaneous expenditures to which were charged some very small items, such as kerosene used in the lanterns which lighted the dirt piles at night; several lantern globes and minor items of that kind.

Q. Now you have here on this memorandum a column headed "Grand Total"; is that taken from the Buffalo books or is that a computation added by yourself?

A. That total is shown on the water works' books and is the sum total of all the items charged to that particular job and includes
4844 each of the two items representing the cost of the pipe and the cost of specials which I have apportioned between the mains and hydrants in each case.

Q. Referring further to this memorandum as to the year 1902, you run through one street there. Following this is like information obtained in the same way as to a number of other streets covering all the six inch pipe?

A. Yes, sir.

Q. Six inch pipe being put together?

A. Yes, sir; I tabulated the six inch pipe extension jobs on all the streets of Buffalo during the year 1902 on this same form.

Q. Then following that are the four inch pipe tabulated in the same way?

A. Yes, sir; there were five pipe extension jobs of four inch main laid during that year.

Q. Now, referring again to this memorandum, I see a note here which includes something; will you read that?

A. I found the note on the pipe extension record in connection with the cost of laying the six inch main on Jersey Street in 1902, which stated that they had included in the cost for pipe charged to this job the cost of 189 feet of screw pipe which was used under the river—some river in Buffalo. I don't know which—and included it in this case as it appeared on the books.

Q. Following each size pipe there are some totals here; are those taken from the books there?

A. No, sir; those footings were made in my office by my assistants, simply adding the total for each column to be carried forward in arriving at the weighted averages for the five year period.

Q. I see there is a memorandum here for six inch pipe calls for a trench two and a half feet wide and six feet deep?

A. That information was given me upon my inquiry as to 4845 the size of the trench. I was told that the trench for four inch and six inch pipe was made two and a half feet wide and six feet deep.

Q. To figure the number of cubic yards it was necessary to have both the width and depth of the trench?

Objected to on part of defendants as being immaterial, incompetent and not proper rebuttal.

A. Yes, sir.

Q. Now I note here is grade crossing construction work excluded; what does that refer to?

A. I found from the books for that year that the water works department had extended mains through the freight yards of some of the railroads which had incurred a considerable increase in expenditure, on account of tunneling work and planking, protecting the banks of the works. The unit costs were very much higher than any other job and I thought it would be unfair to include these extension jobs with others which are put in under normal conditions, because it would make the average unfair.

Q. Of course it would tend to increase and not decrease it?

A. Yes, sir.

Q. There is another note here—total cost less amount of cost of pipe from the rubber company; what does that mean?

A. That refers to a small adjustment which was made in correcting the pipe extension record with the store house record. There was a transfer of thirteen feet of pipe. I made the memorandum here as it appeared on their books to get the necessary balance.

Q. Now there is another memorandum here—amount added to make total agree with Company's record—is that taken from their books or is it a memorandum of yours?

A. I found in totaling my tabulation and in comparing 4846 my total with their book total there was a slight discrepancy in the addition covering the cost of construction on Tillinghast Street for a six inch main. The difference was twenty-nine cents, and I added the figures that appeared on their books and found they had made a mistake in transferring the twenty-nine cents. So I added that twenty-nine cents to my figures so as to bring the total cost amounting to \$849.78 so as to agree with the books.

Q. Does this memorandum to which we have been referring cover the details we have mentioned, so far as they appear on the books of the Buffalo Water Department as to each job done in the year 1902 as shown by the books of that department, except only the jobs you have mentioned where the cost was excessively high?

Objected to on part of defendants as incompetent, irrelevant, immaterial, not proper rebuttal.

A. It does.

Q. With reference to that same year, on the second page of this memorandum you have what figures?

A. I prepared in connection with the cost of laying the mains for each year a distribution of the pay rolls charged to the job in question. I found that it was a physical impossibility to distribute the pay rolls for all the jobs covering the five year period in anything like the amount of time at my disposal. So I carried my analysis through enough pay rolls each year to give me a figure which I felt approximated the average for the entire work. In some instances it covered one half of the total labor charges during the year, and in some instances about one third. But my analysis up to that point seemed to be carried far enough to give me an average which was practically stationary from that point on. If I had analyzed all of

4847 the pay rolls it would have taken me several weeks. I distributed the pay roll for the different jobs according to the daily time sheets forwarded by the foreman on the job to the engineering department. Those foremen distributed the labor over the following classes: Foremen, calkers, carpenters, watchmen, lead-boys, laborers, water boys, and showed the total for the services of this kind. I tabulated these from the time sheets, showing my total labor costs for the jobs, which we used to compute the labor cost in determining the cost of trenching and back filling. I inquired as to the wages and was given the schedule paid as shown in the time sheets, showing the wages paid to each class of service included in this distribution of the pay roll.

Q. And there follows here a memorandum showing that schedule of wages?

A. Yes, sir.

Q. Now here is a memorandum, I see—"exceeds pipe record \$125.00" what is that?

A. I found from going over the foreman's pay roll that a labor charge in the cost of laying a six inch main on Hillery Place, exceeded the amount appearing on the ledger or pipe extension record, as they call it, by \$125.00. There were throughout the five year period several instances of this kind and they covered labor costs which were incurred after the work had been completed, in most instances in connection with placing stone or dirt into a trench which had settled to bring that trench back to the street grade. That would occur sometimes as late as five or six months after the job was closed by the books of the company, but the pay roll showed that charge in that record, although not in the pipe record.

Q. You referred to the books of the company a moment ago; you mean the water works books kept by the city of Buffalo?

4848 A. That is an error. It is the municipal department records in the Bureau of Public Works. It is a municipal plant.

Q. Was there any classification or detail as to these items of cost shown by the books you have referred to, that is not set out on this memoranda?

A. No, sir; this is based upon the pipe extension record, one of the general books of the water department in which are entered the extensions of mains.

Mr. GUERNSEY: Is there any objection to our substituting typewritten copies for this memorandum referred to by the witness?

Mr. BYERS: No, it would — helpful to us to have a typewritten copy.

Mr. GUERNSEY: Then let the record show that for Complainant's Exhibit 83, pages 1 and 2, a typewritten copy may be substituted.

Q. Now, referring to the paper marked Complainant's Exhibit 84, pages 1 and 2, I will ask you whether that was made up in just exactly the same way as Complainant's Exhibit 83, which we have been discussing?

A. It was made up in the same way and represents the construction work for 1903.

Q. This memorandum marked Exhibit 83, pages 1 and 2, is the memorandum about which you have been testifying as to the 1902 construction work?

A. Yes, sir.

Q. As on the previous exhibit, the totals of Exhibit 84 are your own?

A. Yes, sir.

Q. There is a memorandum here \$15,127.70 corrected total, that refers to what?

4849 A. I found a number of jobs in 1903, which when I added

them did not total exactly with their pipe extension record. The difference ranged from the matter of a few cents to three or four dollars. I could find nothing on the books which accounted for this discrepancy, except clerical errors in closing some of the records or in omitting to include the total details of the storage department. I included in my total items the items I took from the books without going to the storage records to see what items had been overlooked.

Q. In other words, you took the actual totals of the items as shown by the books?

A. Yes, sir.

Q. Now there is another memorandum I would like to have you explain—ten inch main involved six inch main cost Letchworth Street excluded, but cost 2.24 per foot—is that on the books or an explanatory note of yours?

A. That is my own note explaining why I excluded from last year's tabulation of construction work on that street. There had been charged on the ledger so many different sizes of pipe that it was impossible for me to determine the nature of the work. I found no one who could explain it in a satisfactory way. There was eight inch, ten inch, and six inch pipe and small pieces of four inch pipe, and it appeared to me a very complicated piece of work in that street, and I omitted it because the unit was so high that I could not satisfactorily distribute the items.

Q. If it covered various sizes in the one job, could you have worked out a unit cost?

A. No, sir; I could not.

4850 Q. So it would not have given the unit for either a four, six, eight or ten inch?

A. Oh, no.

Q. It would have been a composite unit?

A. Exactly.

Q. You say the cost per foot was 2.24, is that the cost on that composite job?

A. Yes, sir.

Q. But you did not know the size?

A. No, there was different sizes of pipe.

Q. There is another memorandum here of a 12 inch main on Carroll Street excluded, proportionments impossible. Explain that memorandum?

A. This job, as I recall it, was the construction of a fire main and incurred additional expenditures over what would be necessary in laying other mains. There was much special work here on account of the number of hydrants and the placing of the hydrants, and it was impossible for me to apportion the cost of the pipe and the cost of the specials so as to know just how much lineal pipe was laid and how much specials should be specially charged to that job. The unit cost was even higher than on the ten inch main, being 2.53 per square foot and I excluded it.

Q. In this year I see also a note—grade crossing construction work excluded—does that mean what it did with reference to the prior year?

A. Yes, sir; I excluded all special work and very expensive, abnormal construction work in connection with grade crossing- and railroad crossings. I followed that method throughout the five year period.

4851 Q. This Exhibit 84 also has the distribution of the labor cost on the second page?

A. Yes, sir.

Q. Here is a memorandum over here—error of one dollar on original work orders?

A. Yes, sir; there was an error in the total. Some book keeper made a mistake of a dollar in adding a column of figures.

Q. Now referring to the paper marked Complainant's Exhibit 85, pages 1 and 2, I will ask you whether that contains the same information with reference to the construction work done by the Buffalo municipal water works plant in the year 1904?

A. It does.

Q. Tabulated in the same way?

A. Yes, sir.

Q. Now I see a note down here—amount added to make total agree with Company's total—who is the company?

A. I see my assistant got into the same habit I did. It should be Bureau of Public Works. There is an error there of fifty one cents, and we added that so as to agree with the book total.

Q. You have changed the word company there to Water Works?

A. Yes, sir; it should be Water Works.

Q. This exhibit is made up in the same manner as the preceding exhibits?

A. Yes, sir.

Q. I find another note here—Chelsea Street construction 929 feet six inch main, sewer trench omitted, cost 1.30 per foot; that is contract or piece work done that year and that is not included in your tabulation?

A. It is not.

Q. Why was it omitted?

4852 A. Because of the unusual conditions. There are some streets where the sewage department had laid a very elaborate sewage system and found it necessary to blast through a good deal of rock. This stone was put back into the trench in a loose way. The water works department laid its mains in the sewer trench and it was a very simple piece of work to make the extension. I did not understand the conditions fully and I inquired of the chief engineer, who told me the information I have just given and also advised, in order to arrive at a proper total that the work which they had performed in the sewer trenches should be omitted on account of the unusual conditions.

The defendants object to conversations between the witness and the engineer as being incompetent, hearsay and immaterial.

The MASTER: You did not include that at all?

A. No, sir; for the same reason I excluded the grade crossing work and work under the river and canal. The cost did not seem to be very much different than in the ordinary jobs, but the labor charges might be very much larger or less. The total would be fair but the individuals making up the total would not.

Q. You have erased that cost per foot there?

A. Yes, I had some notation there. I am not sure whether that represented this particular work or not. The amount I erased here is thirty cents. I did not suppose these would be offered in evidence; they are just as I took them from the water works department books and are my personal memorandum and really detract from the neatness of the sheet.

Q. In reading that memorandum I read it in and if there was a change made without my calling attention to it, it would not check out with the exhibit. These are the original work sheets 4853 you made up for your own information?

A. Yes, sir; just as I made them up in the office of the Water Bureau.

Q. There is another memorandum under Chelsea Street—Dewey Avenue?

A. The conditions there were identical with the work in Chelsea Street.

Q. That was another street where they had a great deal of expensive work?

A. The work was really done jointly, I assume, with the sewage department, because the transfers on the books indicated they had been very much benefited by the service from the sewage department.

Q. The second sheet contains the distribution of labor costs and a statement of wages?

A. Yes, sir.

Q. Now, referring to the paper marked Complainant's Exhibit 86, pages 1 and 2, is that a like memorandum covering the operations of the municipal water works in laying mains in Buffalo in 1905?

A. It is.

Q. Now I notice a memorandum here at the bottom of the page—Main Street construction 156 feet 4 inch main, sewer trench omitted; that was omitted for the same reason you omitted like constructions for the preceding year, because of abnormal conditions?

A. Yes, sir.

Q. And the memorandum, 6 inch main from pumping station omitted, unit costs appear excessive because of unusual conditions; that is the reason why they were omitted?

A. Yes, sir.

Q. Then there is a further memorandum or note—12 inch fire line construction excluded—why was that excluded?

A. For the same reason I excluded the other; the conditions were abnormal.

Q. And the cost excessively high or low?

A. Very high.

Q. On the second page there is the distribution of labor costs for this year?

A. Yes, sir.

Q. Now, referring to Complainant's Exhibit 87, pages 1 and 2, I will ask you whether that is a like memorandum made up by you for the year 1906?

A. It is.

Q. I see a note—construction orders showing excessive cost omitted—what was the character of this?

A. That is just a general statement which embraced construction work of the same character as I explained in the earlier years.

Q. It says, construction orders under 50 in length excluded; why are they excluded?

A. A short job of work is very much more expensive. The men stand around idle a good deal, material is not always accessible, conditions are not as favorable, and the costs per foot in these small jobs was very high, often necessitating the moving of a hydrant in only a fifty foot extension, making the cost per foot very high.

Q. Here is a further note—construction orders in which sewer trenches were omitted—which I suppose refers to such as you describe in the preceding years?

A. Yes, sir.

Q. The second page shows an analysis of the labor costs as in the other exhibits?

A. It does.

Mr. GUERNSEY: May we have a like agreement as to these 4855 exhibits, 84, 85, 86 and 87, that typewritten copies may be substituted for them.

Mr. BRENNAN: The same agreement may apply to these exhibits.

Q. Mr. Hagenah, have you tabulated the results of the figures which are shown on these exhibits 83 to 87 inclusive?

A. I have made a recapitulation sheet showing the results.

Q. Referring to this paper marked Complainant's Exhibit 88, headed recapitulation sheet, cost laying water mains Buffalo Water Works, 1902 to 1906, inclusive, as shown by pipes extension records, you have in the first column the year?

A. Yes, sir.

Q. Then in the next column the size of the pipe?

A. Yes, sir.

Q. Then the third column indicates what?

A. The total length of pipe laid.

Q. Of each of those sizes?

A. Yes, sir.

Q. And the aggregate?

A. Yes, sir, and for each year.

Q. For instance, this would show how many feet of four inch pipe was laid in 1902?

A. 1270 feet.

Q. And the aggregate amount of four inch pipe laid in the five years?

A. 7799 feet.

Q. Then it would go on and show next the six inch pipe?

A. Yes, sir.

Q. And the total of that?

A. Yes, sir.

4856 Q. Then the eight inch and ten inch?

A. Yes, sir.

Q. I notice as to the eight inch and ten inch, you only have one year there.

A. There was very little pipe of that size laid, and in nearly every instance where it was laid conditions were abnormal, showing a very large increase in cost because of unusual conditions.

Q. Well, is this true, that the result of excluding those abnormally high costs was that there was no eight or ten inch pipe laid except in 1902, and taken into account in making up your figures?

A. Yes, sir; those were the only jobs of that size which I thought would be normal for arriving at an average.

Q. Then what follows the total length?

A. The next two columns show the apportionment of the feet of pipe shown in the preceding column, making the apportionment from the street main proportionate to that part which should be charged to the hydrant.

Q. Then the next column, cost of pipe, two sub-heads?

A. That shows the distribution cost of pipe based upon the feet of pipe charged to the main extension and to the hydrant apportioned.

Q. And the two columns under the head of cost of specials?

A. They show the distribution of the total cost of specials, showing the proportion to be charged to construction and the proportion chargeable to the hydrant.

Q. And then valves, that is self explanatory?

A. Yes.

Q. It is simply the totals from these exhibits 83 to 87 inclusive?

A. Yes, sir.

Q. And lead is the same thing?

4857 A. Yes, sir.

Q. Gasket the same thing?

A. Yes, sir.

Q. Tile the same thing?

A. Yes, sir.

Q. Pavement the same thing?

A. Yes, sir.

Q. Labor the same thing?

A. Yes, sir.

Q. Coke the same thing?

A. Yes, sir.

Q. Teaming?

A. Yes, sir.

Q. Blasting?

A. Yes, sir.

Q. Miscellaneous?

A. Yes, sir.

Q. So that this sheet is simply a recapitulation into totals of the

information that is shown by the preceding exhibits 83 to 87 inclusive?

A. Yes, sir.

Q. Now have you figured out some unit costs from these totals?

A. I have.

Q. And does the paper marked Complainant's Exhibit 89 show these costs as computed by you from the figures which you have been referring to this morning?

A. It does show that.

Q. In the first place, take the total—what is the unit cost per foot laying four inch mains as shown by the records of the city
4858 of Buffalo for the five years prior to 1907, excluding the excessively expensive jobs which you have mentioned?

A. Also excluding in connection with that the cost on account of the hydrant itself, the hydrant specials and the cost of the main pipe from the principal street main to the hydrant, shows an average cost of 76.7 cents per foot of four inch main.

Q. And under like conditions what was the cost shown for six inch main per foot during that period?

A. 99.2 cents per foot.

Q. And eight inch main during that period?

A. \$1.52.7 per foot.

Q. And for ten inch main during that period?

A. \$1.45.4 cents per foot.

Q. Now what was the average cost for trench and back filling during this same period and upon these same jobs?

Mr. BRENNAN: We want to interpose the objection to this question and all questions of this character, because they are incompetent, irrelevant, immaterial and not within the knowledge of the witness, and for the further reason that the witness has not shown himself competent to testify with reference thereto.

The MASTER: Let the objection apply to all of this testimony with the same force and effect as though repeated each time to each question.

A. The average cost of trenching and back filling for the five year period from 1902 to 1906 inclusive was 57 cents per cubic yard.

Q. How are these averages obtained, are they weighted or merely numerical averages?

A. No, this is a weighted average. The average for the different years is sometimes considerable less and sometimes very much higher than this. It was arrived at in this way: I distributed the
4859 pay roll as shown in the second sheet accompanying the exhibits showing the detailed costs, from which I determined the total amount of the labor as shown by the pay roll which was incurred in connection with the trench and back filling, and then I computed the cubic yards of dirt handled as shown by the length of the trench, depth and width, and for the five year period the weighted average was 57 cents per cubic yard.

The MASTER: How does it come that it costs more to put in an eight inch main than a ten inch?

A. That is undoubtedly due to an extraordinary condition, either making the one very expensive or the ten inch very reasonable. The averages are higher for the eight inch pipe, because there is only one job used in each case. It is really not the very best kind of an average. There should be more jobs; there were not enough instances that could be used to really make a proper average.

Q. Now, Mr. Hagenah, what if anything on account of overhead charges do these costs which you computed include?

A. They include no charges which are generally referred to as over head expenses. The city maintains in the board of public works and engineering department for the benefit of the water works department, the chief engineer and his assistants and the expenses of his department are carried from year to year as the operating expenses of the water department and are not charged to the extension work. There is no charge on the books for interest during construction, and being a municipal plant, there is no charge for taxes during construction. There appeared no allowances of any kind to cover casualties and whatever contingencies were encountered are included in the costs. There is no charge to the work for tools. The 4860 men engaged in the extension work are required under the terms of their employment to furnish their own shovels. They are provided by the city with picks to be used. These picks are carried in the storage account or warehouse of the water department and when issued to the men on construction work are charged to the job. When the work is completed and the men return their picks, the job is credited with the picks, so that the only item appearing in the cost for tools would be for tools actually consumed or broken and destroyed in use. There is no charge for the use of tools.

Q. Now referring again to this Exhibit 89, you have here the cost of pipe, specials, lead, coke, carting, miscellaneous and labor. Are there any other items going into the cost of the pipe in the ground that are items on the books of the Buffalo Water Works, so that they may be segregated in this way?

A. I found none; I know of no further detailed record.

Q. Is the cost of trenching there kept separate or is it necessary to work it out from the labor cost?

A. There is no record kept showing the cost of trenching, at least not during these years. The engineering department has made some computation covering the cost of trenching for the last two years, but not for the years 1902 to 1906 inclusive.

The complainant offers and reads in evidence Complainants Exhibit 83 to 89 inclusive.

The defendants object to the offer of each of said exhibits for the reason that the same are incompetent, irrelevant, immaterial, and for the further reason that the exhibits are based upon what purports to be copies of records or books of the Buffalo Water Works Department of the city of Buffalo, and that the facts and figures attempted to be disclosed are not within the personal knowledge of the witness, and because the witness has not shown

himself competent to testify with reference to the matters shown in the several exhibits and that the same is hearsay.

Said Complainant's Exhibits 83 to 89 inclusive are as follows:

4862 Q. You have explained that the tools furnished by the city were charged to the job and then credited to the job?

A. Yes, sir; that is, the picks and shovels are furnished by the men.

Q. I said the tools furnished by the city?

A. Yes.

Q. So that by this method of book keeping there is no expense on actual account of tools in the job?

A. Not appearing in the job costs.

Q. Now let me ask you a question or two to show how this Exhibit 89 is made up, if there is any question about it. For instance, we have got pipe laid, four inch, 7744 feet. What do you divide by that 7744 to get the cost of the pipe itself per foot, four inch pipe?

A. Those figures are shown in the preceding exhibit.

Q. Yes, but I wanted to point it out so that anybody could check it and make the figures himself.

A. The cost of the pipe shown in Exhibit 88 \$2,054.82 representing the street main proportion, that is divided by the total number of feet of pipe laid in what is really the street main, and not the total amount of pipe charged to the job.

Q. That don't answer it very directly. My question was what would you divide by your 7744 total number of feet four inch pipe laid to get your .26?

A. You would divide the cost of the four inch pipe by the total number of feet of pipe.

Q. And the same way to get your specials, you would divide the cost of the specials on the four inch jobs by the number of feet of pipe laid in these jobs?

A. Yes, sir.

4863 Q. That indicates the method by which those details making up your total .767 are arrived at?

A. Yes, sir.

Cross-examination by R. O. BRENNAN, Esq.:

Q. When did you go to the city of Buffalo to secure this information?

A. I made two trips. I spent three days in Buffalo the last week in August.

Q. Can you give me the date of your first visit to Buffalo?

A. I haven't my memorandum book with me. If I had a calendar I could tell. I spent three days in the last week in August.

Q. Three days in the last week in August?

A. Yes, sir.

Q. At whose request did you go to Buffalo?

A. Mr. Guernsey's.

Q. Did any one accompany you?

A. Not my first trip. I think I can give you the exact date when

I was there now. I believe I left Chicago on the night of the 20th of August and spent the 21st, 22nd, and 23rd in the office of the Water Department. I was alone that trip.

Q. You left Chicago on August 20th?

A. Yes, sir.

Q. And spent the 21st, 22nd and 23rd in Buffalo?

A. I think those are the dates. If there was any possible error—I can get the exact date if it is necessary. I was there three days in the last part of August, leaving Chicago on Sunday night.

Q. You think it was the 21st, 22nd and 23rd of August that you spent in Buffalo in connection with this work?

A. It was either those three days or else the corresponding three days the following week, leaving Chicago on the night of 4864 Sunday the 27th.

Q. You left Chicago on the night of the 20th and what time did you get to Buffalo?

A. The train is due there at seven o'clock the next morning.

Q. How much time did you devote there on those three days?

A. All the time.

Q. How many hours for a day?

A. I think I would be safe in saying I averaged something over ten hours a day.

Q. That would be about thirty hours?

A. Yes, sir.

Q. On that trip?

A. Yes, sir.

Q. Did you have any assistants in Buffalo during these three days?

A. Not that trip.

Q. Just what books did you examine?

A. In connection with the other question I would like to say I spent three days more in connection with this work, during which time I had assistance.

Q. I want to limit it now to the first three days.

A. The first three days I was there I examined more particularly the records of the stores department.

Q. What was the name of the record you examined?

A. Pipe extension records and store's record.

Q. How many pipe extension records did you examine?

A. On the first trip I examined first 1906 and 1907, I believe, and then compared the cost for that period with 1909, 1910 and 1911. I had no information when I went away as to what time the court would again meet. I was of the impression it would meet the day after Labor Day, so I did not go into the earlier 4865 years on that trip.

Q. You examined on this first trip the pipe extension records for the years 1906 and 1907?

A. Yes.

Q. And also some storage records?

A. Yes, sir; the records of the storage department. I did my work in the office of the storage department.

Q. What records did you examine with reference to the store house account?

A. Well, it is the store's department record.

Q. How many for that year?

A. In one book, with some memoranda and secondary books showing details.

Q. Now this storage record is what kind of a book?

A. It just shows the detailed charges for the particular construction work and notes the credits for the material returned.

Q. How large a book is it?

A. I really don't know the dimensions.

Q. How many pages were in this book that you examined?

A. About three hundred pages, I should estimate, of which about sixty were devoted to the years that I covered.

Q. Did you check the requisitions covering that year?

A. I didn't examine the requisitions themselves; they were entered on the book.

Q. Did you examine authorizations by the council?

A. They had no authorizations there that I saw.

Q. Did you look for any?

A. I merely went to the record and saw the actual pipe laid.

Q. How much pipe was laid in the year 1906?

A. I could give you that from the annual report.

4866 Q. No from the examination you made at that time upon this first trip?

A. I would have to estimate that, Mr. Brennan, because the first trip was really in the nature of covering the field to see what material was available and the conditions under which I could obtain it.

Q. Well, taking the pipe extension records, how many books did you find in which you found entries covering matters of that kind?

A. One book.

Q. And about how many pages were contained in that book?

A. I think I told you about 300 pages.

Q. That was the storage record you told me about?

A. And the record of pipe extensions was contained in the storage department record with this exception, that they did not carry on their books the cost of labor in the job. They transmitted their stores record showing charges and credit for material and supplies to the chief bookkeeper who entered, merely copying those items upon his record and added to it the pay roll charge for labor in connection with that job.

Q. How many pages did the pipe extension record show for the year 1906, which you examined?

A. Well, I will frankly say I kept no record of the number of pages. I would estimate 60 or 70 pages.

Q. How many entries did you examine?

A. All of them.

Q. How many were there covering that period of 1906?

A. I don't remember. I couldn't tell you how many individual items; there were a good many.

Q. In the year 1907, how many entries did you examine covering that year?

4867 A. I don't know the number of entries. Some jobs were over a thousand feet and some jobs had only 150 feet.

Q. What was the general nature and character of the entries made in this record?

A. They were charges made on the information transmitted to the bookkeeping department from the stores department and engineer's department showing the distribution of the pay roll.

Q. Did it show in the year 1906 the number of feet of four inch main?

A. It was not summarized in the pipe extension record; the annual report summarized that.

Q. Are these exhibits which you have produced here based upon the annual report of this commission or are they based upon the facts disclosed by the books examined by you?

A. They are based upon the books.

Q. Can you tell from an examination of the records you examined for instance, how many feet of 8 inch pipe were laid in the year 1906?

A. I presume so.

Q. Can you tell us now?

A. I did not take that information with me. I can make it up from this second sheet.

Q. I wish you would tell us just what you did on that first trip, the first three days?

A. I made up an analysis of the cost of laying mains of the different sizes of pipe in the city for the years 1906 and 1907, and then not having time to go back over the full five year period, I took the years 1909, 1910 and the information for 1911, to compare results to see if there had been any material increase in cost. On my first visit I had to make an apportionment of the cost of the main
4868 pipe, the length of the pipe and specials, between the main proportion, and the hydrants.

Q. Did you check against the annual report?

A. No, sir; I did not check the accuracy of it.

Q. Did you make any comparison between your figures and the figures shown in the annual report?

A. The annual report does not show the detailed figures. It shows the length of pipe laid in feet. I compared the feet I covered and naturally had a good deal less, as I did not include the abnormal jobs.

Q. Did the records which you examined the first trip disclose all this detailed information?

A. Yes, they disclosed this information and in the last year showed a somewhat better condition than the earlier years.

Q. I mean covering the period of this report from 1902 to 1906?

A. I did not see the figures prior to 1906 on my first trip. That was merely an effort to see what information the books contained, the amount of work it would require to get the desired information,

and how long it would take me to get some general idea as to the condition disclosed by the books.

Q. You found the books very well kept?

A. They were. I should say these departments made a very creditable showing in the manner in which their records are kept. They are much better in recent years than they were ten years ago.

Q. You were endeavoring to ascertain the structural cost of water pipe laid in the city of Buffalo?

A. Yes, sir.

Q. As shown by the books of the water department of the city?

A. Yes, sir.

Q. That was your principal object in going there?

4869 A. I had no other object.

Q. You had no assistance at the first visit?

A. No, sir.

Q. When did you return to Buffalo?

A. On Wednesday night.

Q. In the month of August?

A. I think it was the last Wednesday in August. I think I can get you the exact date. I left Chicago on the night of Sunday the 27th and was in Buffalo the 28th, 29th and 30th of August. I left Buffalo at 8:30 on Wednesday night the 30th and was in Chicago Thursday morning.

Q. You made two trips to the city of Buffalo?

A. Yes, sir.

Q. Those two trips covered a period of six days?

A. All told for myself, yes sir.

Q. You completed all of this work so far as you were concerned, in Buffalo, on the 30th day of August?

A. I completed my first trip in Buffalo—

Q. I understood you to say you left Chicago the first trip on August 20th and arrived in Buffalo the 21st, and remained the 22nd and 23rd and returned to Chicago on the night of the 23rd?

A. As to those dates there may be an error as to whether it was that week or the following week.

Q. You again left Chicago for Buffalo on the night of August 27th, arriving in Buffalo on the morning of the 28th?

A. I don't understand your question. I am afraid we are getting confused.

Q. How many trips did you make?

A. Two, one in August and one in September.

4870 Q. I understood you to tell me you left Chicago on the night of the 27th?

A. I am not sure which it was. I went in the month of August. I made only one trip in August. I left on Sunday night, left there on the night of Sunday the 27th, or the night of Sunday the 20th, I am not positive which of those it was. I believe it was on the night of Sunday the 27th. I spent Monday, Tuesday and Wednesday in Buffalo.

Q. You said something in your direct examination about Labor Day, did that intervene?

A. No, I hurried back thinking this court would meet again on Labor Day.

Q. Labor Day was on September the 4th; so that you had completed your work in Buffalo and returned to Chicago prior to that day?

A. Not completed my work; I had made my examination.

Q. You had completed your work so far as Buffalo was concerned?

A. No, sir; so far as my first trip was concerned.

Q. When did you make the second trip?

A. I was in Buffalo on my second trip on September the 28th, 29th and 30th.

Q. Now will you tell the Master in a general way about the number of books and records you examined on your first trip covering the three days to which you referred?

A. I should hardly say it amounted to an examination and audit. It was a trip to get information as to the character of the records, what I could obtain, and it was based upon an examination of the record on the stores' department of the bureau of public works for the water department, showing the material which they had issued for the construction of mains and I checked that with the extension record in the office of the general book keeper of 4871 the water bureau, and made a pretty thorough examination of the years 1906, and 1907, as I recall, and then made a rather hasty examination of the last two years, possibly three, to see if there had been any material increase in cost or change in conditions since then.

Q. You took some time to make inquiries from the different departments of the city?

A. Oh, yes.

Q. Talked with the engineer?

A. Yes, sir.

Q. And the accountants in the office?

A. Yes, sir.

Q. You were not during all that time engaged in examining books and records?

A. I suppose I spent during those days as much as two or possibly three hours' time talking with officials. I met the different officers of the company, visited with them, told them what I wanted in a general way, and they referred me to the proper parties and gave me an introduction and I went to work. During the course of the work of course I talked with them some.

Q. Did you go out to visit the pumping station?

A. No, sir.

Q. Did you go over the city to see the location of the hydrants?

A. No, sir.

Q. Or the location of the water mains as shown by the records of the office of the water commissioners?

A. I wouldn't know where the mains were located. The records show how many feet they were laid from the curb and I supposed that was sufficient.

Q. Were you familiar with the city?

A. I had been in Buffalo a number of times.

4872 Q. Had you ever constructed a water works system?

A. No, sir.

Q. Ever laid any water mains?

A. No, sir.

Q. Ever supervised the construction of trenches?

A. No, sir.

Q. You had no personal contact with the construction of water works in any sense whatever, had you?

A. No, sir.

Q. You do not claim to know anything about the practical construction of water works?

A. No, I am not a constructing or operating engineer of any water department.

Q. You are not a consulting engineer?

A. No, sir; not personally. I have an employé in my office who renders that service.

Q. You had no assistance on this first trip and all the work done there on behalf of the complainant in this case was through your individual efforts?

A. Yes, sir.

Q. Do you recall the name of the engineer with whom you talked or met?

A. Yes, sir; it was Mr. Richardson. I don't remember his initials. I think he has been with the department about 18 years.

Q. On your second visit to Buffalo, the latter part of September, did anyone accompany you?

A. Yes, sir.

Q. What person or persons?

A. Mr. L. S. Weeks.

Q. Who is he?

4873 A. An engineer in my employ in my St. Louis office.

Q. How long has he been in your employ?

A. About a year.

Q. And has he made his office in St. Louis during all that time?

A. No, he is engaged there at present upon work of my own in St. Louis.

Q. Where had he worked before going to St. Louis?

A. He was with me in Chicago.

Q. How long were you in Chicago?

A. About a year.

Q. Was he assisting you in your work for the city of Chicago in the gas inquiry?

A. Gas and telephone, yes sir.

Q. Engaged on that work during all the time he was in Chicago?

A. No, Mr. Weeks performed other services during that time.

Q. What other service had he performed in addition to this work?

A. I gave him a leave of absence for a short time to do some work in the city, I think it was Reading, Lancaster, Allentown, a number of cities in Pennsylvania in the appraisal of telephone plants.

Q. Were any gas works to be appraised in any of those cities?

A. No, sir.

Q. Is Mr. Weeks a graduate engineer?

A. I don't know whether he graduated; my impression is he graduated from the University of Illinois. He attended there at least three years. I don't know whether he received a degree or not.

Q. How old a man is he?

A. I think about 27 or 28 years old.

Q. Did you have any assistants in Buffalo, if so, tell us who they were?

4874 A. Mr. Rose, who is an employé of the meter department of the water works department in Buffalo. I found Mr. Weeks and myself together could not secure the information we wanted and asked the engineering department and accounting department if they could give me some assistance. I would be willing to pay the men. They laid aside to me the services of Mr. Rose.

Q. Let me ask you, do they use meters to any considerable extent in connection with the water works system in Buffalo?

A. I have no personal knowledge of that. I assume from the extensive meter department they do.

Q. Do you know how many miles of main they have in Buffalo?

A. No, sir.

Q. How many public hydrants?

A. No, sir.

Q. Do you know the common way of measuring the consumption of water?

A. I suppose it is by the meter. I have no personal knowledge.

Q. Do you know how many services are metered there?

A. No, sir.

Q. Have you any idea about it?

A. Not as the result of any inquiry.

Q. Or any investigation made by you, personal investigation?

A. I made no inquiry as to the total number of services or the conditions of the services.

Q. Or how many metered services there are?

A. No, sir; my examination was devoted exclusively to the question of the cost of laying mains.

Q. Well, you secured the assistance of Mr. Rose while at Buffalo?

A. Yes, sir.

Q. And the data and information which you secured there was secured either by yourself or Mr. Weeks or through Mr. Rose?

4875 A. Yes; Mr. Rose was engaged practically all the time he was working with me on this pay roll distribution.

Q. Did Mr. Rose have any connection with any other department aside from the meter department of the water works system?

A. I have no personal knowledge as to that. But the party who introduced me to him said he had been with the water bureau a long time and was acquainted with all the records, and he was a very efficient assistant.

Q. You don't know what practical experience he had with the water works system, except what some one told you?

A. His title was chief clerk of the meter department.

Q. An accountant of the office?

A. I don't know what particular duties he performed.

Q. How old a man was he?

A. There again I have to estimate; I think 35 to 37 years of age.

Q. Just what did Mr. Rose do in connection with this investigation made by you?

A. He worked on the distribution of the pay roll as shown from the time sheets reported by the foreman to the engineering department.

Q. Do you know how many time sheets he examined?

A. Not as to numbers, but a good many.

Q. Do you know what years they covered?

A. All these years from 1902 to 1906 inclusive. He and Mr. Weeks made the distribution; they worked together.

Q. Do you know of your own personal knowledge just what Mr. Rose covered in your investigation?

A. I don't know now; I was out of the office a number of times and he and Mr. Weeks were working together.

Q. How long was Mr. Rose on the job?

A. Saturday, the last day I was there.

4876 Q. Just one day?

A. Not all of that day; I think he started about eleven o'clock and worked up until nearly six o'clock.

Q. You think he covered the time sheets for the years 1902, to 1906, inclusive, for the work that had been done in the city of Buffalo in the extension of mains during that period?

A. No, I don't think he did. I know he didn't, because he analyzed the pay roll only for the years 1902 to 1906 inclusive, working with Mr. Weeks. He worked only from Saturday morning about eleven until six in the evening. Mr. Weeks and I had carried the work along pretty well up to that time. We did not analyze the pay roll on every job, because we found the conditions were practically the same.

Q. How many time sheets did you personally examine before you brought your assistant Mr. Rose in on this Saturday?

A. I examined personally probably thirty or forty, so as to become familiar with the general nature and how to handle them and started Mr. Weeks, and then he and I worked together and then had Mr. Rose help us and he and Mr. Weeks worked together. I might say our work was very much simplified. I was very much indebted to Mr. Richardson who made it an easy matter for us to get the record, brought the records from the vault and explained every item. We worked next to his desk.

Q. Do you remember what years the 30 or 40 estimate sheets you examined covered?

A. No, I do not.

Q. You did not undertake to make a careful analysis and audit of the time sheets of the Buffalo Water Department covering the period which you referred to in these reports?

A. Not of the department, but the wages that went into the work I did.

4877 Q. How many hours a day did the laborers work from the year 1902 to 1906?

A. An eight hour day.

Q. Eight hour shift?

A. Just eight hours a day; not a shift.

Q. What wages did they receive for these services, say in 1902?

A. These wages are taken from the pay rolls as reported to the Engineering Department by the foreman. The foreman received three dollars per day.

Q. In the year 1902?

A. Yes, sir.

Q. What did the others receive?

A. Calkers, \$1.75 per day; laborers \$1.50 per day, watchmen \$1.64 per day; lead boys \$1.50 per day.

Q. What was the scale of wages paid in the year 1905, covering the same character of labor?

A. These figures are again taken from the pay rolls reported by the foremen on the job to the engineering department. The foremen received \$3.00 a day; calkers \$2.00 a day; watchmen \$1.63 a day; laborers \$1.50; lead boys and water boys were classified as laborers.

Q. In 1906 what was the scale of wages paid?

A. These wages are likewise taken from the time sheet reported by the foreman to the engineering department; the foreman \$3.00 calkers \$2.00 a day; watchmen \$1.65; laborers \$1.50; water boys and lead boys were classified as laborers and paid \$1.50 a day.

Q. You say the trenches were 2½ feet wide?

A. Yes, sir.

Q. How deep were they?

A. Six feet.

4878 Q. In all cases?

A. I was told so, yes, sir, for the size of the pipe in these tabulations. I don't know how deep they laid the twelve inch mains or the larger mains.

Q. You hav-n't any personal knowledge on the subject?

A. No, sir. I visited no open trench, and I don't know whether it is actually six feet or six and a half feet. The engineer told me the instructions to the foremen were to make the trench six feet deep. I have no reason to believe they were laid under any other conditions.

Q. What was the weight of the cast iron pipe used?

A. I don't know.

Q. What was the weight of the specials that were used?

A. The weight was as a rule given. I didn't take the weight of individual castings; it might be a very large one or a small one.

Q. Do you know anything about the specials used in the distribution system of the water works?

A. I have seen a great many. I am not acquainted with them in the sense that I have manufactured them or put them in.

Q. Do you know the names of the specials?

A. Yes, a good many.

Q. Do you know how they are used?

A. Yes, sir.

Q. How frequently they are used?

A. I know the use of specials depends on the conditions en-

countered. There are no specials in straight work; unless you have hydrants.

Q. Did you examine the ordinances of the City of Buffalo to ascertain how the service connections are made from the mains to the curb or property line?

4879 A. I paid no attention to that.

Q. Do you know whether or not the time sheets which you examined included labor of that kind?

A. They didn't show any labor of that kind.

Q. What did they show?

A. They showed the cost of laying, trenching, putting in the pipe and making joints, putting in the hydrant, filling the trench, and tamping the dirt.

Q. Do you know whether they do make service connections from the main to the curb at the time the main is laid in the streets?

A. I don't know that from any other source than these books which I examined, which show all the detailed costs which went into the cost of that particular job of main extension. There was no charge there for any service pipe, from which I assume there was no service pipe put into that job.

At this time, 12 M. an adjournment was taken until 9 A. M. October 14, 1911.

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9 A. M., SATURDAY, October 14, 1911.

W. J. HAGENAH continued on cross examination by R. O. Brennan, Esq., testified as follows:

Q. Now Mr. Hagenah did you have any other assistants besides Mr. Weeks and Mr. Rose, who assisted you a few hours in your work?

A. No other assistants than the general assistance of Chief Engineer Richardson who lent me every possible assistance in showing me the records, very often bringing them to the place where I was working so that no time was lost in getting the desired information.

Q. Were any of these details worked out for you by any one connected with the United Gas Improvement Company or any of its employés?

A. Oh no, none whatever.

Q. Did all this work yourself with the assistance of these men?

A. With the assistants, yes.

Q. Can you tell us about how many entries you examined during the six days covering this work?

A. That would be almost impossible Mr. Brennan. Some of the pages had as many as seventy five entries I should say and some of them not more than a dozen. On some of the pages the columns were footed and on some they were not, we had to foot them.

Q. And this report purports to give the structural cost of the laying of mains in the city of Buffalo, is that the purpose of this report?

A. Yes, sir.

Q. Then I understood you to say on yesterday that you found no record covering the trenches or excavations, is that right?

A. I don't understand your question.

Q. Did you find any record in the water bureau in the city of Buffalo that showed the cost of digging trenches?

4881 —. Not for these years covered by my investigation from 1902 to 1906 inclusive.

Q. Somewhere in this report I noticed you showed the average as being 75 cents per cubic yard. How did you arrive at that figure?

A. No, sir; I think I showed 57 cents.

Q. How did you get that figure if there was no record from which to compute cost on digging trenches?

A. I computed it myself. The department did not have that unit cost analyzed for these years. I computed it, taking the total length of the trench, and width of the trench, reduced that total cubic feet to cubic yards, analyzed the labor statement to find the total labor cost incurred in digging the trench and back filling, then made my simple division.

Q. You could in a very brief space of time could you not secure for the Master right from the books and records of the Des Moines Gas Company the structural cost for laying mains and digging trenches in the city of Des Moines, say for the years 1909 and 1910, without going to Buffalo New York for that purpose could you not?

A. As far as the ability to make the analysis from the records of the Des Moines Gas Company is concerned, I certainly could. My report does not purport to show the cost of laying mains in Des Moines of the Des Moines Gas Company, it is an investigation of conditions in the city of Buffalo.

Q. It would be a very small amount of work comparatively speaking to get the information for the Master as to the structural cost of digging trenches and all work incident to laying gas mains.

A. As far as the work is concerned with a number of assistants.

Q. Say you had the number of assistants you had in Buffalo it would not take you nearly as long would it because you are
4882 familiar with the records?

A. I would not want to express any opinion on that without having an opportunity of looking the records over.

Q. You have gone over the books pretty thoroughly and I believe you stated on your former examination the books were well kept, that everything could be found upon the books. Isn't that the substance of your former testimony in this case?

A. Yes, I audited the books, but I have not gone over the items going into making up the cost of main- distributed over the particular work in order to get the unit cost.

Q. You saw these entries in the books as you analyzed them did you not?

A. The detail entries making up the cost.

Q. You saw the entries from which details could be very easily calculated?

A. I didn't see the details, I saw the total cost.

Q. You cover construction account in your report?

A. Yes, construction account, but that don't mean every detail.

Q. You spoke about your analysis of the books and records of the Des Moines Gas Company and that the books were well kept and that the information was easy to get practically in every instance where you desired it, isn't that the sum and substance of your former testimony in this case?

A. I analyzed the construction account, I don't remember making any statement in my testimony about analyzing the cost of laying mains in this city, either that or any other unit.

Q. You have a general idea of the books of the Des Moines Gas Company I take it?

A. Yes, I have a general idea.

Q. You have informed yourself to some extent at least 4883 as to some of the detailed information?

A. Yes, I am familiar with some of the detailed information.

Q. Now it would not be much of a job would it to make up for the Master a report covering the year 1910, showing structural cost for laying mains?

A. It could be done.

Q. And the digging of trenches, how long would it take?

A. I don't know. I would want to make a preliminary survey of it, I would not express any opinion.

Q. About how long?

A. I don't know without looking over these details.

Q. Well will you look over the details?

A. I will, if it is absolutely necessary that I must I will be very glad to do so, otherwise not.

Q. Now Mr. Hagenah you have told us here that in the brief space of six days that you were able to go to the city of Buffalo and make an examination covering substantially seven years which you have set out in the report in which you undertake to tell the Master from that report the structural cost of laying water mains and digging trenches in the city of Buffalo for the purpose of making comparisons in this case. Now you say you did that all in the brief space of six days. I am asking you about how long it would take you to cover that same information in the city of Des Moines for one year, say the year 1910?

A. I don't know. The fact I got the desired information in Buffalo in six days would be no evidence that I could do it from the records of the Des Moines Gas Company for one year in any particular time without my at least seeing and looking at it.

Q. Well haven't you looked at it at all in Des Moines?

A. Not these details, no. I said a moment ago I hadn't 4884 seen the details going to make up unit cost per foot or other unit for laying mains.

Q. You are on a stated salary are you not with the United Gas Improvement Company?

A. Why no.

Q. You are not?

A. No, sir.

Q. What is the character of your employment by the defendant, are you employed by the month?

Objected to because it assumes employment by the United Gas Improvement Company which is not shown by the testimony, the testimony so far as it shows shows he is under employment by the Des Moines Gas Company.

A. I never was employed by the United Gas Improvement Company.

Q. You were first employed were you not by one of the officers or agents of the United Gas Improvement Company in Chicago?

A. Not employed by them no sir, I was asked to come out here and look at the records here by Mr. Curran, I was not engaged by Mr. Curran.

Q. No one connected with the Des Moines Gas Company employed you in the first instance?

A. They did not employ me in Chicago. Mr. Curran asked me to come out here and I came out and talked over the work with Mr. Haines, Mr. Guernsey and others.

Q. Are you employed by the month by the Des Moines Gas Company?

A. No, sir.

Q. Are you paid by the day?

A. I render statements to them at the end of the month, sometimes at the end of two or three months.

4885 Q. What is the per diem or monthly salary which you receive?

A. I am not receiving any salary, no specific amount other than rendering an account.

Q. How much do you receive a day for services in this case?

A. I do not put it on a daily basis at all.

Q. Well on a weekly basis?

A. Don't put it on a weekly basis.

Q. A monthly basis?

A. Don't put it on a monthly basis, just render a statement for my services.

Q. You don't attempt to say so much a day, so much a week or so much a month but just render a statement for the services.

A. Just render a statement of services for such a period, services and expenses.

Q. For the month of September how much did your statement amount to for services rendered the Des Moines Gas Company?

A. I don't believe I rendered a statement for the month of September, quite sure I didn't.

Q. For the month of August then?

A. I think my total statement for services and expenses during the month of August, and I will have to give you my best recollection on that——

Q. Don't you know?

A. I have not my record here, the exact amount but it was somewhere near \$800.

Q. How much for the month of July?

A. I don't remember that. That is on the record over there, I can get the exact figure or could tell from my own books.

Q. Don't you remember how much you had or how much you charged for your services in this case?

4886 A. I would like to see my own books, I render services to a good many people, I can't recollect specific amounts.

COURT: State as near as you can.

A. I would say somewhere around \$600, I can't give the exact amount.

Q. Up to about the first of September you have been paid have you not in the neighborhood of \$1,500 for services?

A. I believe that is the amount.

Q. Now have you made up a statement for the month of September?

A. No, I didn't render a bill for that month.

Q. Have you made any charges against the company for services?

A. I think the month of September I rendered an expense account of about 290 odd dollars, I don't remember the exact amount and received an amount on account of \$500.

Q. But that was for expenses?

A. Not the \$500.

Q. You got \$500 on account.

A. On account. I rendered no bill of services, but got a check for \$500 on account.

Q. You say that your statement is not based on so much a day or so much a week or so much a month?

A. No, I render a statement according to what I think my services are worth. I of course go through some method of analysis in arriving at the figure, but I don't say so many dollars per day or per part of a day.

Q. It would amount to about so much a day wouldn't it in the final wind up?

A. Not necessarily.

Q. In how many places are you performing services in the way of giving testimony such as you have in this case?

4887 A. Well I am not giving testimony this month in any other case than here, but I am doing work in other places.

Q. In what other places are you performing like services?

A. I will have to ask you a question, what you mean by like services you mean in a rate case or you mean just a general utility case?

Q. Yes, the question is plain?

A. Four cities.

Q. Will you name the cities in which you are performing like services?

A. I would rather not do that.

Q. Why not?

A. Because in some cases the suit has not yet been brought, investigations are being conducted to see what course is to be taken. I will tell you my principal work now is in the city of St. Louis but as to other cities I would rather not state what my relation is now.

Q. You have been working for these other cities during the past month have you?

A. I have been doing some work for them, yes.

Q. Are you preparing the side of the case for one of the parties in interest in some prospective law suit?

A. I don't know whether I would be justified in saying I was preparing the case for the purpose of having my material used as a basis for a law suit. I am making an audit and appraisal and cost analysis and preparing rate schedules in some cities.

Q. In cities that there is in contemplation some rate litigation.

A. Litigation or compromise. Making up a contract for services for a number of years to come, not necessarily litigation.

Q. Are you representing the municipality or company affected in the suit?

4888 A. In St. Louis I am representing the company. In two of the cities I am representing the city and two the company.

Q. You have got five cities?

A. No, I have four cases. I include St. Louis in the one where I represent the company. I have four matters I am interested in, two representing the company and two the city.

Q. Four cities outside of Des Moines?

A. Yes.

Q. In the cases where you represent the municipality, do you include Chicago?

A. Oh no, I am all through with the city of Chicago.

Q. Outside of Chicago is it?

A. Yes, sir.

Q. Don't include that in any way?

A. Not the city of Chicago, no sir.

Q. Now Mr. Hagenah I wish you would take a look at the records of the Des Moines Gas Company, say for the year 1910, at your earliest convenience and I wish you would be prepared to tell the Master when you return after making that examination about what length of time it would require to prepare some sort of a statement that would give the Master an opinion or an idea of the structural cost of mains, services and trenches in the city of Des Moines for the year 1910.

Mr. GUERNSEY: We object to this so far as the complainant is concerned as in the first place absolutely in no sense cross examination, the testimony of the witness having been confined entirely to the city of Buffalo for a period ending January 1, 1907, and we object for the further reason that if the parties desire this information they have their own experts and they have access to the books and there is no obligation on the part of Mr. Hagenah or
4889 upon the part of the complainant to do this work for them, and as far as the complainant is concerned it is not disposed to do it. If they want to make an arrangement with Mr. Hagenah

of course we have no objection whatever. I would like to have the record show that their own expert, Mr. Hall, is sitting in the room and has been over these books and spent more time on them with his assistants than Mr. Hagenah, and the last I knew Mr. Sangster, Mr. Hall's assistant was at work on the books. I don't think there is anything in the situation that warrants the defendant that wants this information in asking complainant to do the work of examining the books and compiling it.

Q. I wish you would tell the Master this, for whom you are employed if you know, whether for the Des Moines Gas Company or the United Gas Improvement Company. Tell us the terms of your employment?

A. I am employed by the Des Moines Gas Company to appear in this case as an expert witness, there is no specified amount to be paid to me for my services. I am to render my bill and I presume it will be paid. Up to this time my bills have been paid. These are the only terms of my employment here.

Q. Is that contract in writing?

A. There is no contract at all, consequently not in writing.

Q. There is no contract express or implied?

A. No, sir; nothing more than I have said.

MR. GUERNSEY: That is objected to as calling for a legal conclusion, we all know if a man is employed there is a contract for payment, but I don't believe the witness should be called upon to testify to a legal proposition.

Q. Let me ask you this question, in the other cities where you are engaged on behalf of the companies affected by some contemplated rate regulation or otherwise are your services secured by the United Gas Improvement Company in these cities?

A. No, sir; I may say not in any of the four cities where I have personal employment outside of Des Moines is the U. G. I. Company in any way a party or operating a plant in that city.

Q. A stockholder in any of the plants?

A. I am sure it is not.

Q. You are sure it is not?

A. I have not seen the stock book, but I am satisfied in my own mind it is not a stockholders.

Q. Does your employment whether a verbal contract—I suppose you must have some arrangement with them?

A. Yes, a verbal understanding I am to testify here and to be paid for my services.

Q. Was anything said as to how long your services would be required in this case?

A. No, sir. I have been called back two times. No statement as to how long I should be here.

Q. Can you tell us about how much you have been paid up to date for your services in this case?

COURT: He has really answered that question, \$2,290.

A. I think it is a little more than that, there was another expense

account for the month of September that was put in there. I should say it was between 24 and 25 hundred dollars.

Mr. GUERNSEY: That covers expenses as well as services?

A. Yes, sir.

Q. To go back to your table of unit prices in the city of Buffalo do you know whether the cast iron pipe which was used in making the extensions, whether they were delivered at the trenches or whether delivered on board the cars?

4891 A. The foundries manufacturing pipe used in Buffalo are located in that city consequently there is no freight. They are not delivered on cars. The records for pipe are not shown separately for several of the years covered in that five year statement. My understanding of it is and the only conclusion one could get from the books in the absence of——

Q. I don't want you to draw conclusions, simply want you to tell what you know about it from the examination you made of the books?

A. Have to conclude from what the books show and that is that the city buys the pipe at the works, at the pipe yard of the works and hauls it to the trench.

Q. Did the books show where the pipe had been purchased?

A. Not on the entry on the construction record, no sir.

Q. So you simply infer from the fact there are pipe foundries in the city of Buffalo, the city of Buffalo must have purchased at these foundries?

A. No, sir; I did not. I inquired how they obtained pipe in view of the fact there was no freight charge there.

Q. There was not a single entry on the books indicating where the pipe had been purchased.

A. Not on the pipe extension records, there was no item of that kind, but in the absence of a freight charge there I inquired as to where the pipe was purchased and how the freight cost was taken care of. I was told then by the deputy commissioner of the water department that the pipe was purchased from local foundries.

Q. I believe you testified to that and I believe we objected to that and moved to strike it as hearsay. There was not anything on the records to show where the pipe had been purchased.

4892 A. Not the pipe extension record, but I examined contracts and correspondence in regard to it.

Q. You can't tell the Master the weight of the cast iron pipe that was used?

A. No I can't. Standard sizes of pipe.

Q. Nor the weight of the specials?

A. That appeared on the books, the price for the specials I may say is fixed by a specified amount per pound.

Q. Do you know the dimensions of the trench ordinarily made by the gas company in extending its mains in the city of Des Moines?

A. I do not.

Q. Did you attempt to make any comparisons between Buffalo and Des Moines based upon the same dimensions?

A. No, sir; I make no comparison between Des Moines and Buffalo at all. My work in Buffalo was not for the purpose of comparison as I understood it was merely to find out what is the cost of laying pipe and mains in that city. This I obtained at the request of Mr. Guernsey and made my report to Mr. Guernsey. The purpose which he wants to use it for is something I do not know. I made no appraisal while I was down there, made no audit of the general books, merely analyzed what it cost to lay mains over the five years' period.

Q. That analysis was from a cursory examination of the records and some talks you had with different ones around the office and from that you have made up this detailed statement?

A. I must object to that, it was not a cursory examination, not based on talks with officers, but based on the pipe extension record which is the final record of cost kept by the bureau of water.

Q. You mean to tell the Master now do you that your figures represent a detailed investigation of everything connected 4893 with the pipe extensions covering the years 1902 to 1907?

A. If you mean by detailed investigation the carrying of every particular charge on the books back through the store house and through the requisitions, then of course I did not.

Q. You took the totals?

A. Yes, but if you want to know whether my figures show the actual cost as appeared on the final books of the Buffalo Water Company taken from those books, and verified by several years' examination of the requisitions in the stores department and for a test of the pay rolls for each year then I say my results are the actual records as shown by the books of the Buffalo Water works for the cost of laying pipe for that five year period.

Q. Do you know how large a force the city used in extending its mains?

A. No, it was not necessary for me to go into that. I saw the pay roll. I testify only what the books show.

Q. Can you tell us now on the average about how many men were used in the year 1904 digging trenches and laying mains?

A. No, sir.

Q. There would be considerable difference would there not in the cost where you were laying a large number of mains and where the company extend a block or two this month and a couple of blocks the next month and so on scattered throughout the year, be considerable difference?

A. I don't know. My record shows the conditions during this five year period in the city of Buffalo conditions under which these mains were actually laid from which I exclude abnormal construction orders and short extensions.

Q. Have you in mind any considerable extension during any one year during the period shown in your report?

4894 A. You mean the length of feet of pipe laid on any particular job?

Q. Well for the whole year?

A. I am afraid I don't quite understand your question.

Q. Can you pick any particular year in which the city of Buffalo

extended its mains to any considerable extent over and above any prior years?

A. There was a great deal of extension work every year there.

— What would be the average per month of extensions.

A. I don't know that.

Q. You haven't figured that out?

A. No.

Q. Can you from your report?

A. No, I don't know whether I can say it was laid in the month of June, September or October, I don't know that. It appears on the books for this particular year.

Q. It don't show the month in which it was laid?

A. Shows the month when it was started, on a very long job, the work might last six or seven months, sometimes finish in one month.

Q. Take Main street, that is the principal street in Buffalo, I think your report shows that there was some main extensions in that street made by the water company.

A. Yes, sir.

Q. Is there a record showing when the work was commenced and how much pipe was used, character of the pipe and where the pipe was purchased and where delivered by the foundry and the amount of labor expended in extending the main in that street, in other words, could you from the records that you examined could you give the detailed information with respect to the extension of the water main in Main street in the city of Buffalo?

4895 A. Most of the items which you have mentioned appear on some book or record in the Bureau's records, some of them you have assumed and are contrary to the facts.

Q. I am speaking of this particular street?

A. I don't know, but I don't believe the record shows that the pipe was delivered to the trench by the foundry.

Q. What do you remember that the books which you examined would show with respect to the water main which was extended and placed in Main street in the city of Buffalo?

A. I know from the books the actual cost of that job and the detailed cost of it. The books will show the date when the work was commenced and the date when specific charges were entered on the books.

Q. Will the books show and do they show, that is the books which you examined, did they show the amount of cast iron pipe that was used, the cost of that cast iron pipe, the number of laborers employed upon the job, the size of the trench. In other words did the books which you examined with respect to the extension referred to show a detailed statement of the cost of the extension?

A. If you will let me add to that and say books and records which I examined, because detailed labor charges are not entered on the book, it is merely total labor appears there, then I will say the records show all that information except the depth and width of trench which I got by asking the engineering department.

Q. Have you any memoranda or data from which you can tell

us just the amount of labor that was used in this extension on Main street?

A. Yes, it appears on my table.

Q. How long were they engaged in that work, and how many persons were employed?

4896 A. That could be obtained from the detailed pay roll.

I have not made a copy of the pay roll. I could tell you from these records the total amount of labor cost which entered into the cost of the job.

Q. I want to know whether in making this investigation you took up that job and examined the time sheets and pay rolls and everything concerning that job so you are able to tell us just how much it cost the city of Buffalo to lay that main and make that extension, did you do that in each and every instance as shown in your report?

A. On every one of the jobs which appears in my report I secured from the records all the detailed information which is shown there, but did not analyze the pay roll on every job to find out how much of that total labor charge went to the foreman, how much to the water boy, how much to the lead boy, how much to the trench operators and diggers and how much went to the caulker on the job. I got the total labor charge and I analyzed the pay rolls on about one half or one third of each of the jobs for each of the years.

Q. What I want to get is whether to get at each one of the items shown in the report, the way you got it and whether you would be able to state that you personally examined all of the books and records with respect to that job so that you are able to state to the Master under oath that it cost the city of Buffalo in extending its mains in a particular street so much for the cast iron which was used, so much for specials, so much for labor, in other words, can you segregate each and every one of the items and tell the

4897 Master the actual cost to the city of Buffalo was for that particular job as shown by the books and records?

A. Exactly that information which you have indicated is contained in the exhibits filed here for each of the jobs shown there and I realize that I am under oath when I say that those are the exact figures taken from the books and office records of the water bureau.

Q. You were able to cover that seven years in about six days.

A. Five years.

Q. You said you examined 1910 and '11?

A. Yes, but I am not including those in my report.

Q. Took some time to go over these, didn't it?

A. Yes, it did.

Q. You were able to do that and segregate each and every item so you know that the figures are correct with respect to every street main that is referred to in that report?

A. With my assistants I covered exactly that information and data shown on those sheets as exactly as the books show it.

Redirect examination by N. T. GUERNSEY, Esq.

Q. You were asked several questions which you finally answered by saying that you were not a water works engineer, you had not

built water works, and so on. I wish you would state whether you have frequently examined the books and records of the water works companies?

A. I have.

Q. You have also been asked once or twice whether you knew that these trenches were six feet deep, as deep as that and I wish you would state in that connection—I think it is obvious—whether if the trenches were not as deep as that it would simply result in increasing the unit cost per yard of excavation?

A. Yes, it would naturally increase the unit cost if the
4898 trench were shallower, indicate less dirt had been thrown and the labor cost would be higher per cubic yard excavated.

Recross-examination by R. O. BRENNAN, Esq.:

Q. It would not cost as much to dig a trench five feet deep or four feet deep would it as it would one six feet deep?

A. No, the narrower your trench is the less it costs. Here I only give the item so many days' labor on this job and if the trench which was made as a result of that labor investment is six feet deep it has cost less per cubic yard than if the trench were only four feet deep.

Q. It would not cost as much to dig a trench 18 inches wide and five feet deep as it would to dig a trench two and a half feet wide and six feet deep.

Q. If everything was equal I think I am safe in saying the small ditch would not cost as much as the big one.

Witness excused.

4899 B. F. KAUFFMAN being recalled on the part of the complainant and examined in chief by W. L. Read, Esq., testified as follows:

Q. I believe you stated when on the stand before that you and your firm were in the insurance business?

A. Yes, sir.

Q. Do you also write liability insurance?

A. Yes, sir.

Q. Are you familiar with the prevailing rates or premiums for such insurance?

A. Yes, sir.

Q. Upon what is the rate of premium based in liability insurance?

Objected to as incompetent, irrelevant, immaterial and not proper rebuttal.

A. It is based upon the pay roll expenditure.

Q. With reference to any other matter, that is the character of the employment or character of the business have anything to do with it?

A. It does, based on the pay roll expenditure in connection with the work. Such liability as exists in connection with teamsters, automobiles, etc., is based at so much per automobile.

Q. I didn't know but the fact that some business is attended with greater hazard than others would affect the question of the rate?

A. Yes, sir.

Q. Have you seen and examined what is now marked complainant's Exhibit 90?

A. Yes, sir.

Q. Directing your attention to the first sheet I will ask you to state what the rate of premium would be upon the assumption that 4900 the pay rolls for the work specified as is stated on the exhibit.

Objected to for the reasons heretofore urged.

A. The first item operating works and distribution system. The first item would be a rate of \$9.90 per hundred dollars pay roll, total annual premium, \$6,199.92.

Q. The second item.

A. The second item takes upon the pay roll a premium of \$1.16, making a total premium of \$585.69.

Q. The third item?

MR. BRENNAN: We would like to have the record show that to each and every one of these questions the defendant interposes the same objections.

COURT: The objection will apply to each and all the questions and answers of this witness touching the matter of insurance without being repeated with the same force and effect as though they were made after each and every question and the answer of the witness is taken subject to that objection.

A. The next item is four motorcycles at \$42.00 each.

Q. The third item is vehicles?

A. Yes.

Q. You may state with respect to the several details what the rate of premium would be and what the total would be?

A. Rate of premium on motorcycles \$42.00 each. On the tri-cars \$84.00 each; on the teams \$15 each, on one automobile \$56.25, on one automobile \$72.50. Total premium, \$734.75 on vehicles.

Q. That is the annual premium?

A. Annual premium.

Q. Where you have given totals thus far you have referred to the total annual premium on the item?

A. Yes, sir.

4901 Q. Referring to the fourth item on the subject of elevators, what would be the premium upon that?

A. \$12.50 on each elevator, total annual premium of \$50.00.

Q. For four elevators?

A. For four elevators.

Q. What is referred to by the 5th item?

A. That refers to the property damage outside of the plant. It would refer to property damage by reason of gas explosions or any promiscuous liability by the gas company or other property damaged.

Q. Is that covered by the usual liability insurance?

A. It is not.

Q. Are there any rates upon that?

A. There are no definite rates obtainable on that owing to the fact that the insurance is not obtainable outside of London.

Q. It is obtainable from the Lloyds?

A. Yes, sir.

Q. And not outside of that?

A. Not outside of that.

Q. So there is no rate included in the exhibit for that item?

A. No, sir.

Q. Turn to the next sheet of Exhibit 90, what is that; what does that show?

A. That is a detailed statement of the totals under the first item on the first sheet.

Q. What does the third sheet show?

A. A detailed statement of the items shown under the second item on the first sheet.

Q. And the next sheet?

A. The next sheet a detailed statement of the vehicles 4902 shown under the third item of the first sheet.

Q. And the fourth sheet?

A. The detailed statement of the vehicles as shown under the fourth item of the first sheet.

Q. Thus far you have spoken of the operating liability?

A. Yes, and distribution.

Q. Now the next sheet in the exhibit refers to construction?

A. Yes.

Q. Assuming that the pay rolls are as stated on the sheet now under consideration what would be the rate of premium and what the premium.

A. The rate of premium covering laying mains and services would be \$14.40 for each \$100 pay roll and on the pay rolls stated in the exhibits the total annual premium would amount to \$4,166.78. On additions, alterations and repairs to works, the rate would be \$7.30 per hundred dollars pay roll, total annual premium \$428.24 making the total premium annually \$4,595.02 for this work not including any structural steel work, sewers, tunneling, shafts or subways that might be necessary.

Q. Why is that excluded?

A. Excluded on account of being extra hazardous.

Q. That rate is not ordinarily written?

A. Not ordinarily written.

Q. In either class is what is known or sometimes called as property damage incuded?

A. No, sir.

Q. That is where a workman goes into a house and making 4903 repairs and doing work and there is damage to the property, that is not covered?

A. That is not covered.

Q. What is shown by the two following sheets of Exhibit 90?

A. The next following sheet is a detailed statement of the laying

of mains and services as outlined in the first statement under the construction sheet.

Q. And the next sheet?

A. The last sheet is simply a detailed statement with reference to additions, alterations, and repairs to works as shown on the second item of the construction sheet.

Mr. BRENNAN: Defendants move to strike out all of the testimony of this witness in reference to liability insurance for the reason that the same is entirely incompetent, irrelevant, immaterial not proper rebuttal and because the witness had not shown himself not competent to testify concerning it.

Witness excused.

4904 JANSSEN HAINES being recalled on the part of the complainant and examined in chief by *by* W. L. Read, Esq., testified as follows:

Q. Referring your attention Mr. Haines to Exhibit 90 and to the first sheet or rather to Exhibit 90, was that prepared by you or under your direction and supervision?

A. Yes, sir. That is Exhibit 90 from the rates which I got.

Q. That you got where?

A. From Mr. Kauffman.

Q. Referring your attention to the first page what does that purport to show, what does that report show?

Mr. BRENNAN: We want the same objections to this testimony as was made to the same line of testimony when Mr. Kauffman was on the stand.

COURT: The same objection and the same order with reference to it.

A. That purports to show the cost of liability insurance on the basis of the 1910 pay rolls and the equipment in service during 1910 of the Des Moines Gas Company.

Q. That answers the question generally. Now what is shown in the first column of the first sheet of Exhibit 90?

A. Shown the amount of the pay roll distributed among operating works and distribution system and clerical force.

Q. Do the figures set forth in the first column state the pay roll for the year 1910, for the several items specified?

A. Yes, sir.

Q. For operating works and distribution system what was the total pay roll?

A. \$62,625.48.

Q. Clerical force how much?

A. \$50,490.64.

4905 Q. What are the figures \$37,943.91 at the bottom of the column?

A. That is the amount of the pay roll paid during 1910 for the operating and distribution system only.

Q. And why is it set forth in the exhibit?

A. It is set forth under item five on page 1 as the basis for the

rate covering the risk for damage to property outside of the plant in operating distribution system.

Q. I notice that no rate is specified, why is that?

A. Because I was unable to obtain any rate on that class of risk.

Q. From your experience is there a hazard from such risk?

A. There is a very decided hazard as has been illustrated by some accidents and losses which we have had in the past.

Q. Is anything included in this estimate of insurance for what is known as property damaged?

A. Well this item five on page 1, is to apply to property damaged, but the companies object to writing that and the insurance people tell me it can only be written by the Lloyds of London.

Q. If I understand you, you say there is risk and hazard?

A. Yes, sir.

Q. And that you are not able to obtain insurance?

A. Not any underwriters in Iowa, no, sir.

Q. Turning to the fifth sheet I think it is of Exhibit 90, headed construction liability insurance on basis of 1910 pay rolls, etc., does the amount \$28,736.43 in the column entitled pay roll represent the amount of the pay roll for the item entitled laying mains and services?

A. Yes, sir.

Q. For the year 1910?

A. Yes.

Q. Does the amount \$5,866.32 correctly state the amount 4906 of the pay roll for the year 1910, for additions, alterations and repairs to works?

A. It does, yes.

Q. Are there any exclusions?

A. No, sir! there are no exclusions in that.

Q. What is the meaning of the note in parenthesis excluding structural steel, sewers, tunnels, shafts and subways?

A. That memorandum in parenthesis on page 6 means that the premium rate does not cover liability insurance on work on structural steel, sewers, tunnelling, shafts and subways which is an additional hazard not included in that rate.

Q. Referring your attention now to the first sheet of Exhibit 90, and upon the assumption of sales of gas of 532 million cubic feet and assuming a total annual premium for the items specified to be \$7,570.36 have you figured out the cost per thousand cubic feet of gas?

A. I have, yes.

Q. As a matter of convenience, I wish you would just state it?

A. It is 1.423 cents per thousand cubic feet of gas.

Q. Referring your attention to the sheet of Exhibit 90 entitled construction liability insurance on the basis of 1910 pay roll, assuming the total sales to be as stated and the total premium to be \$4,595.02, what would be the cost annually per thousand cubic feet for that item?

A. .8637 cents per thousand cubic feet.

Cross-examination by Hon. H. W. BYERS:

Q. Mr. Haines, what is included in that term clerical force as you use it here on this sheet?

A. That is the office force.

4907 Q. I know, but tell us what office force?

A. It is the office force, that is the force of employés in the office of the Des Moines Gas Company in Des Moines.

Q. Including you?

A. Yes, sir.

Q. And the United Gas Improvement Company?

A. No, sir; just simply includes the employés of the Des Moines Gas Company in the office in Des Moines.

Q. Does not include this \$10,000?

A. What \$10,000.

Q. That goes to these several gentlemen that do not stay in Des Moines always?

A. You mean the salaries that are paid Mr. Clark, Mr. Lilley—

Q. Yes, is that it?

A. That is not in there, no sir.

Q. How much liability insurance did you have on that force last year?

A. We didn't carry any liability insurance on it.

Q. How much did you have on your office force in 1909?

A. We have never carried liability insurance on our office force.

Q. Can you tell off hand what was the pay roll of the clerical force as you have now explained it was made up of in 1909?

A. No, sir; I have not got it. It shows in the books which are in evidence.

Q. This \$50,000 includes everything in the office in the way of employés of the Des Moines Gas Company?

A. Yes. We classify our clerical force on a separate pay roll and that covers them all.

Q. Did you ever know of a gas company carrying liability insurance on its clerical force, ever hear of such a thing before?

4908 A. Not to my own knowledge, no sir.

Q. Your own salary is included in it?

A. Yes, sir. Just the general office pay roll just as it appears on the books.

Q. That liability as you understand, does that cover accidents and injuries to the employés, this clerical force, is that the kind of liability insurance you are talking about?

A. That includes employés liability and the workmen's collective insurance.

COURT: Protects the company simply against any liability to an employé by reason of any negligence of the company. That is what it means?

A. Yes.

Q. Does it cover insurance to the company against liability against accidents to the employés by reason of negligence of the company or its other employés, is that what you understand?

A. Yes, includes what is ordinarily known as liability insurance.

Q. Now what are the risks that you have in mind incident to the business of working up there in your office that would justify adding to the cost of gas this \$585.69 a year that you can think of just now.

A. You mean me to give a list of the accidents which have occurred to this *this* liability insurance would apply?

Q. One fifth of this represents your salary, \$10,000, now what risks do you take up around the office there that ought to be insured against and that ought to be charged up to the cost of making gas as you look at it?

A. I suppose the same risk that any employé takes of the company.

Q. Of course you don't just mean that, you mean the same risk that any other clerk in the office.

4909 A. Employé that would be covered by this insurance.

Q. When you say employees, that covers the boys that are working in ditches and down at the plant in the engine room, the teamsters and drivers that do have some risks. I am talking now about the clerical force aloje, what you mean is that you have the same risk that any other clerk or man in the office has?

A. Any other employé that is covered by this insurance as specified.

Q. You have got an automobile in here, one automobile \$56.25. Who uses that automobile?

A. That I think is the engineer's automobile.

Q. And belongs to the company?

A. Yes, sir.

Q. Another automobile here \$72.50, whose is that?

A. That is the manager's automobile.

Q. That is the one you used?

A. Yes, sir.

Q. You use it for all purposes?

A. All necessary purposes.

Q. All purposes, you keep it at home don't you and use it for your personal use as well as for the gas company don't you?

A. I use it in connection with the gas company's business.

Q. It is the only automobile you do use isn't it?

A. Yes, sir.

Q. You use it all the time for your personal use, your family's use and your friends don't you?

A. I use it whenever it is necessary to use it, yes.

Q. Still you think that that ought to be charged up to the cost of making gas and have liability insurance for it? Did you carry any liability on these automobiles last year?

A. I think either last year or the year before, yes.

4910 Q. Who was the policy written to? Who was the policy in favor of?

A. The policy was written in favor of the Des Moines Gas Co.

Q. Are you sure about that?

A. That is my best recollection, yes.

Q. What company did you have the policy with?

A. I really have forgotten, Heneral. I never made a claim under it, I don't remember making a claim under it.

Q. That was liability insurance insuring yourself against accidents, accidents to yourself and not in favor of the Des Moines Gas Co.?

Mr. READ: That is wholly immaterial, the question here is what would it cost to carry liability insurance, not whether the insurance as carried or not and whether there was liability insurance or not the risk had to be carried by the company if it didn't have insurance and I submit it is immaterial.

A. Do you mean accident to myself when riding in the automobile?

Q. Yes, or when somebody else was riding in the automobile or would run into you?

A. I carried personal accident insurance which was covered by that liability but I paid for that myself, that was purely a personal matter.

Q. That was the only kind you did carry at any time, the Des Moines Gas Company had no liability insurance on that automobile did it at any time?

A. Yes, it did.

Q. Who wrote the policy do you know?

A. I can't remember. The policy has not been renewed.

Q. What liability insurance have you ever carried there since you have been in charge outside of this one year you say you had some automobile insurance?

A. I don't remember at any time when we have carried 4911 liability insurance for the Des Moines Gas Company, we have always—

Q. Well that is an answer. Now Mr. Haines, another matter, I direct it to you as president of this company. In examining the books and records of the company which was made necessary by your counsel's statement you did not have the time nor the inclination to look up the matters that I asked you to last week, we find an authorization issued in 1901, as I remember it, for a certain holder, the holder that has been the subject of some talk here for several weeks, a water gas set, a governor and an oil tank, and all of them refer to certain contracts with one Mr. G. J. Roberts as I remember it and we request of you now, as president of this company to furnish to counsel and to the Master a detailed statement of the accounts and records of the Des Moines Gas Company to the United Gas Improvement Company covering these items. And there is one thing further we request of you too at this time, we request you to furnish before the close of this trial a detailed statement of all of the overhead charges that have been entered in your books for the years 1909 and 1910, charged to construction, everything in the way of an overhead charge that has been charged into construction and if not in construction a detailed statement of the entries showing charges in any other account. In addition to that we want you to furnish a detailed statement from the books and records of the Des Moines Gas Company showing the charges and the character of them for construction work done by the Des Moines Gas Company during the year 1911 beginning with December 31,

1910 up to and including the first day of September, 1911. The reason we demand this information of you at this time is that the books and records are so kept that it is impossible for the expert accounts of the city to trace these items satisfactorily even to themselves or to counsel.

4912 Complainant offers and reads in evidence Complainant's exhibit No. 90.

Complainant's exhibit No. 90 is objected to by the defendants for the reason that the same is incompetent, irrelevant and immaterial, not proper in rebuttal, not properly identified and for the further reason that some of the items referred to in said Exhibit No. 90, the expenses for some of the items referred to in Exhibit No. 90, have never been incurred by the Des Moines Gas Company or charged upon its books.

Witness excused.

Mr. GUERNSEY: This is all of the testimony that the complainant has in rebuttal at this time. We wanted to use Mr. Alvord for I suppose not over an hour on some general questions relating to these overhead charges in rebuttal of some things that have been said here but he is in New York and will be there for about a week as I understand it so we cannot get him now, but if we can get him at the time when we begin again without any inconvenience we shall ask to be permitted to. But aside from that and any possible omissions through oversight complainant rests.

Mr. BRENNAN: Defendants now move to strike out the testimony of the witnesses Jansen Hains and B. F. Kauffman in reference to liability insurance for all of the reasons urged to the introduction of complainant's Exhibit No. 90.

Mr. GUERNSEY: We want the statement that we rest to be subject to the same understanding we had with the defendant if from oversight or any other reason we omitted offering any exhibit we intended to offer we may have the privilege of making the offer.

4913

Defendant's Testimony in Sur-Rebuttal.

Mr. BYERS: To complete the record of Mr. Douthirt's testimony, I offer in evidence for whatever it is worth defendant's Exhibit No. 78 which is the last statement of the Commercial Trust Company of Philadelphia showing the officers and directors, one of them vice president of the Des Moines Gas Company and the United Gas Improvement Company.

Mr. GUERNSEY: We object to this statement because it is in no wise identified and is therefore incompetent and because it appears to bear upon its face lead pencil memoranda which are not a part of the original statement and the source of which is not shown at all and we object to it further because it is wholly irrelevant and immaterial.

W. F. DOUTHIRT being recalled on the part of the defendant and examined in chief by Hon. H. W. Byers, testified as follows:

Q. You may examine Exhibit No. 78 and state whether the list of officers there, principal officers of the Commercial Trust Company are correctly stated.

A. I know that Mr. Thomas De Witt Cuyler is president of the Commercial Trust Company of Philadelphia and I know Mr. John H. Mason is vice president. The other officers mentioned there I do not know.

Q. The list of directors there, how many of the names are officers of the U. G. I. Company?

A. One.

Q. Which one is that?

4914 A. Samuel T. Bodine.

Q. Isn't Mr. Ellis an officer?

A. No.

Q. When did he cease to be?

A. Never has been.

Q. Are you sure about that?

A. Yes, sir. He is a director not an officer.

Q. That was the distinction you had in your mind?

A. Yes, sir.

Q. Mr. Ellis is a director of the U. G. I.?

A. Yes, sir.

Q. How about Mr. Clement A. Griscom?

A. He is a director.

Q. Mr. Samuel T. Bodine is an officer and director of the U. G. I.?

A. Yes, sir.

Q. Any of the others of that list there either officers or directors of the U. G. I.?

A. Mr. Morris L. Clothier who is put down here as a director of the Commercial Trust Company is a director of the U. G. I.

Q. Any others?

A. No.

Q. This Exhibit No. 78 gives the proper name of the corporation does it and its location in Philadelphia?

A. I believe the Commercial Trust Company is the proper name of the corporation and I see here a photograph of a building and below it the words 20 South Broad street, City Hall square. I recognize that building as the building in which I know the office of the Commercial Trust Company is located.

Q. Have you seen this statement before?

A. No, I never saw it before.

4915 Q. Counsel suggests it was probably gotten up for this case, do you think it was?

Mr. GUERNSEY: No, I said we didn't know it had not been gotten up for this case.

Q. Now one thing further Mr. Douthirt you told us you were secretary of the Des Moines Gas Company and also of the United Gas Improvement Company. We have had some difficulty, at least

our side of this case has, in trying to locate the book entry covering a certain holder down here at the gas works, I think it is the large holder, any way it is one that is authorized along about 1901, completed between that time and 1906 or 1907, along in there and also a certain water gas set authorized at about the same time and a governor and a large boiler and also an oil tank I think. Can you tell us where we can put our hands on the books that will show all the details about that apparatus, these different articles?

A. I think I can tell you where some of the information will be found.

Q. Where?

A. Philadelphia.

Q. In whose offices and in whose books?

A. It would be found very likely in the books that Mr. Roberts who is mentioned as the contractor kept or had kept at the time the work was done.

Q. Who was Mr. Roberts at that time?

A. Mr. Roberts at that time was one of the engineers of the United Gas Improvement Company.

Q. Where was his office during these years?

A. It was in the office of the United Gas Improvement Company.

Q. Who is Mr. Roberts now?

A. Mr. Roberts now is—you mean what is he doing now?

4916 Q. What is he doing now?

A. He is now, I think his title is first vice president, at any rate he is chief operating man of the public service corporation of New Jersey and his headquarters are at Newark, N. J.

Q. He is with the U. G. I. Company?

A. No.

Q. Don't they control that plant?

A. No.

Q. When did Mr. Roberts leave the U. G. I.?

A. I can only make a guess at that. I will give you my best impression about it if you like. I should say it was about three or four years ago.

Q. He didn't take any of the U. G. I. books away with him did he?

A. No.

Q. The books you refer to are the books of the U. G. I. are they not kept by Mr. Roberts?

A. They will probably be found in the office there.

Q. You have known that all the time since this trial has been on and all the time our accountant has been trying to dig up these facts?

A. Yes.

Q. You were an officer of the U. G. I., at the time of the authorization of these several things that I refer to were you not?

A. No, 1901 and 1902, *no* I entered the service of the United Gas Improvement Company November 1, 1902.

Q. What were you doing before that?

A. I was working in an office in New York City?

Q. Not for the U. G. I.

A. Not for the U. G. I.

Q. When was your attention, after the commencement of
4917 this trial first called to these things that I now refer to?

A. I don't know what you mean by the question.

Q. When was your attention first called to the fact that we were having difficulty about finding the cost of some of this property that was invoiced here as belonging to the Des Moines Gas Company?

A. I can't fix the time.

Q. It was right at the beginning of the case wasn't it before any evidence was taken at all?

A. I don't recall.

Q. Perhaps you can tell the Master how that holder was paid for?

A. No, I can't.

Q. Why can't you?

A. Because I can't.

Q. You mean because you can't just simply you haven't tried to find out?

— Because I have not the knowledge.

Q. Have you tried to find out?

A. No.

Q. Why?

A. I didn't know of any reason why I should.

Q. You thought it was nobody's business did you?

A. No.

Q. Have you had any of these numerous gentlemen that you have on the pay roll looking that up or try to look it up?

A. No.

Q. You have been in charge of this field force haven't you all these twelve weeks?

A. Well if you will define what you mean by in charge perhaps I can answer.

4918 Q. Well you have been the superior and man who had the authority to direct this numerous force of employes of the U. G. I., and of the Des Moines Gas Company during the twelve weeks that this trial has been on?

A. Why I have been here helping the counsel who have charge of the case doing what I could.

Q. That is not quite an answer Mr. Douthirt. You don't mean to tell the Master that you have occupied only the same relation to this law suit that this numerous other employes of the U. G. have? You have been the superior and the directing force haven't you?

A. Of some of them, not all of them.

Q. Well all of these U. G. I. boys?

A. No.

Q. Who has been superior to you?

A. Well some of the men who have been here are men from the operating department over whom I have no control.

Q. How is it with Mr. Curran?

A. Mr. Curran is in the department with which I am connected and I may say that I have control over him.

Q. Mr. Curran is comptroller of the U. G. I.?

A. He is.

Q. And is here because you had him some here?

A. Yes.

Q. He is the one man who ought to know all about the books at least of the U. G. I. Isn't he?

A. He ought to have familiarity with the books at least covering the time he has been in that department of the company. Whether he has ever gone back of that I do not know.

Q. You produced here or had produced on our request what is supposed to be the treasurer's books, his check book which 4919 was introduced as showing all of the transactions at least with respect to paying out money upon interest and bonds and you produced them for the purpose of enlightening the Master about the business of the Des Moines Gas Company and the U. G. I. Company as far as it would go. Now did you know that you were not producing all of the books that were kept by the treasurer that would have enlightened the Master and counsel as to the cost and the payment of these several pieces of property that I have just referred to?

Mr. GUERNSEY: We object to the first part of this question as argumentative, a statement which is not consistent with the record and which is misleading because it apparently has for its purpose charging the witness with having produced something and only producing a part of the record for the purpose of misleading, whereas, as a matter of fact the record will show that what was produced was produced at the request of the other side and not produced I think by Mr. Louthirt at all, but produced by Mr. Haines, and I will say further that what was produced was exactly what was asked for.

Mr. BYERS: That is not a correct statement which is probably due to counsel's memory. The gentleman who is on the witness stand is the man that suggested that the check book was here and was responsible for having it brought into this case while Mr. Haines was on the witness stand.

A. There are no books kept by the treasurer that would show anything about the cost of the apparatus mentioned, the cost of the apparatus mentioned to the Des Moines Gas Company is shown by the books of the Des Moines Gas Company in part.

Q. This holder was not all paid for prior to 1906 was it?

A. It was not paid for by the Des Moines Gas Company or by the Capital City Gas Light Company, no.

4920 Q. I mean prior to 1906?

A. No.

Q. If they paid for it at all it was paid for after 1906 wasn't it?

A. Paid for by the \$285,000 bonds which have been mentioned a number of times in this hearing.

Q. Well then was some part of this holder and the apparatus I re-

fer to included in the \$105,000 open account with the U. G. I., with the Capital City Gas Light Company?

A. No, I think not. The books of the Capital City Gas Light Company would show just what was covered by that \$105,000 account.

Q. Don't you know that the books of the Capital City Gas Light Company show that \$120,000 of the \$240,000 which didn't go to pay that \$105,000 went to the Capital City Gas Light Company and was distributed as dividends?

A. Yes.

Q. And not in payment of any property. Now then the fact or truth is about that holder and about that water gas set and the governor and the oil tank can very largely be secured from the books of the United Gas Improvement Company can they not?

A. I think that the cost of the labor and material that went into the items of property you have just mentioned can be obtained from the books which were kept by or for Mr. Roberts that I mentioned a few moments ago.

Q. Those are books of the United Gas Improvement Company are they not?

A. Well technically no. But they are there in the office.

Q. I am not speaking technically, I am speaking broadly. Who dealt with Mr. Roberts in these matters?

A. You must remember that you are speaking of matters now that occurred before I was in the service of the company. I will give you my best impression about it, but I must say it is only an impression because I was not there at the time. If you want that kind of an answer I will be glad to give it to you.

Q. I want what you know about it?

A. I have no personal knowledge then.

Q. If you don't know who Mr. Roberts dealt with with respect to this property I am asking you about, that is an answer.

A. You mean with whom he contracted for the erection of the holder for example?

Q. Yes.

A. I don't know who built the holder, who the persons were who actually built it.

Q. Who has the contract?

A. I suppose it is in the files covering the Roberts business.

Q. Where?

A. That would be in Philadelphia.

Q. In whose files?

A. In the files which are kept in the office of the United Gas Improvement Company.

Q. Whose files are they?

A. I am trying to tell you.

Q. Just tell me whose files?

A. They are files covering matters of this sort kept in the office of the United Gas Improvement Company.

Q. Whose are they, whose files?

A. You mean whose room, whose case?

Q. Who has charge of them, a part of whose business?

A. They are in charge of the United Gas Improvement Company.

Q. And they are a part of the records of the United Gas Improvement Company are they not?

4922 A. You may call them that if you like.

Q. You said a moment ago you did not know how the holder was paid for. Since then you volunteered the statement that it was paid for with \$285,000 in bonds. Now which statement is correct?

A. The question is a little bit involved, do you mean how the contractor who built the holder was paid?

Q. Yes.

A. Or how the Des Moines Gas Company paid for it?

Q. No, I have not said anything about the Des Moines Gas Company.

A. I want to find out what it is you would like to know.

Q. I want to know which of your statements are correct that you don't know how the holder was paid for and then later you said it was paid for with \$285,000 in bond. I want to know which of these statements were correct.

A. I think they were both correct. So far as payment made by the Des Moines Gas Company is concerned that is covered by the bonds.

Q. Who put the money into the property during its construction?

A. You mean the holder?

Q. Yes.

A. The United Gas Improvement Company.

Q. Who did they deal with while doing that?

A. I told you a moment ago I didn't know who the building of the holder was.

Q. When they put any money into it a record of that money went on the books didn't it?

A. The record would show that money to pay the contractor for the holder was advanced to Mr. Roberts who had the contract with the Capital City Gas Light Company and it would be charged against Mr. Roberts very likely.

4923 Mr. BYERS: The defendant at this time demands of you as secretary of the United Gas Improvement Company and as secretary of the Des Moines Gas Company a complete detailed statement covering the building of the holder which has just been referred to, the water gas set the covernor and oil tank and boiler, a statement from the United Gas Improvement Company of all dis-Improvement Company also the original contracts made by the United Gas Improvement Company with Mr. Roberts for the construction of this apparatus, the several pieces of apparatus. And we also demand of you the production before this Master of the books of the United Gas Improvement Company showing the account kept between it and the Des Moines Gas Company of Des Moines, Iowa, covering the years 1906 to 19010. We also desire to have you produce for counsel and for the Master and for use in this case a detailed statement from the United Gas Improvement Company of all dis-

counts and rebates on material and supplies furnished to the Des Moines Gas Company by the United Gas Improvement Company during the years 1906, 1907, 1908, and 1910. We say to you now that unless these things are produced that we will urge the information that we have from the books now as showing that this whole business was paid and cleaned up in the form of rebates and discounts.

MR. GUERNSEY: I don't quite understand that last statement, this whole business was all cleaned up in the way of something and discounts. I wish counsel would make that a little more explicit.

MR. BYERS: I am referring now to these articles that have been mentioned, the holder, water gas set, the tank and boiler and governor and the numerous other things that we have not yet been able to discover. These contracts are No. 37 and No. 52. Will you produce these records and statements.

MR. GUERNSEY: In the first place of course these cannot be 4924 produced now and if these matters are to be produced it will mean I suppose we shall all take a new start in the testimony in this case and as far as the company is concerned—Mr. Douthirt can speak for himself, we have nothing to say as far as he is personally concerned, as far as the U. G. I. is concerned, but as far as the Des Moines Gas Company is concerned we object to all the matter as immaterial bearing on matters of cost and not of value and object to it for the further reason that it is too late to ask for this now because none of this information is here, none of it can be produced and whether or not the United Gas Improvement Company would produce it or not I do not know. We have no control over it.

MR. BYERS: What do you have to say for yourself Mr. Douthirt?

A. I will take the matter under consideration.

Q. When will you decide? We want to know today.

A. As soon as I can.

Q. We would like to have — answer now while you are on the witness stand as to whether you will produce the books and records asked for or not?

A. I have made the best answer I can.

Q. That is all the answer you will make?

A. I have said I will take it under consideration and let you know as soon as possible.

Q. You refuse to say now that you will produce the books, records and papers we have asked for?

A. I refuse to say anything more than I have already said.

Witness excused.

4925 MR. BRENNAN: The defendants now offer- and read- in evidence Section 1 of Ordinance No. 724 passed on the 16th day of May 1895 as the same appears in section 1230 of the Revised ordinances of the City of Des Moines for the year 1900, said ordinance No. 724 being an ordinance to fix the price of illuminating gas, and to prescribe the conditions under which persons and corporations dealing in illuminating gas can occupy and use the streets and alleys of the city of Des Moines.

SECTION 1230. Rates. Section 1. That every person, firm or corporation furnishing to the inhabitants of the city of Des Moines Illuminating gas shall be entitled to charge and receive therefor, the following prices and no more, to-wit: For illuminating purposes \$1.40; for fuel purposes, \$1.10; per thousand cubic feet, with a discount of 10 cents per thousand feet if paid on or before the fifteenth day of the month following that in which the gas is furnished. The above prices are for illuminating gas having an illuminating power of not less than twenty four candle power; gas having less candle power shall be furnished at a proportionate less rate per candle power.

The defendants also offer in evidence and read Section 3 of said ordinance No. 724 May 16, 1895, as follows:

SEC. 1232. Report to City. Section 3. Any person, firm or corporation which is now in possession of the streets or alleys of the city, for the purposes provided in this ordinance, shall be and is hereby required to file a report with the city clerk on the fifteenth day of January and July of each year giving the number of thousand feet of gas manufactured and furnished the city or its inhabitants during the previous six months and the amount per thousand feet received therefor.

In case any such person, firm or corporation shall fail or 4926 refuse to file said report as aforesaid then each and every such person, firm or corporation shall be required to pay to the city the sum of \$25 per day for each and every day said report is delayed. And each such person, firm or corporation shall be required to furnish all necessary meters free, and shall furnish and lay service pipe to the lot line free, and from the lot line to the meter for not to exceed 15 cents per foot.

Defendants now offer and read in evidence ordinance No. 751 passed February 7, 1896, being an ordinance to amend an ordinance heretofore passed by the city of Des Moines on the 29th day of April A. D. 1895, and again passed on the 11th day of May A. D. 1895, and designated as ordinance No. 724, and entitled as follows: An ordinance to fix the price of illuminating gas, and to prescribe the conditions under which persons and corporations dealing in illuminating gas can occupy and use the streets and alleys of the city of Des Moines, and prescribing the terms of a proposed contract with the Capital City Gas Light Company as to rates for gas and conditions of purchase of said plant. Said ordinance last offered appearing in sections 1237 to 1247 both inclusive of the revised ordinances of the city of Des Moines for the year 1900, and which is as follows, this offer being made by the defendants on the suggestion of the Master.

SEC. 1237. Capital City Gas Light Company. Section 1. That said ordinance No. 724, passed on the 29th day of April A. D. 1895, and again passed on the 16th day of May A. D. 1895, (and more fully described in the caption hereof), be and the same is hereby amended and modified, as respects the Capital City Gas Light Company, to the extent hereinafter specified and no further: Provided, that this amendment shall be accepted by said Capital City Gas Light

Company as hereinafter specified, unless so accepted said ordinance No. 724 shall continue in full force as originally passed.

SEC. 1238. Rates. Section 2. From and after January 1, A. D. 1896, the said Capital City Gas Light Company shall be entitled to charge and receive for gas for illuminating, fuel or other purposes, furnished by it to the City of Des Moines or its inhabitants, for the period of fifteen years from and after the first day of January, A. D. 1896, prices or rates not to exceed the following: For two years thereafter, to-wit: the years 1896 and 1897, \$1.30 net per thousand cubic feet; for the next two years, to-wit: the years 1898 and 1899, \$1.25 net per thousand cubic feet; for the next two years, to-wit: 1900 and 1901, \$1.20 net per one thousand cubic feet; for the next three years to wit: 1902, 1903 and 1904, \$1.15 net per thousand cubic feet; for the next year, to wit: 1905, \$1.10 net per thousand cubic feet; for the next five years, to wit: the years 1906, 1907, 1908 and 1909 and 1910, \$1.00 net per thousand cubic feet. The said Capital City Gas Light Company may add 10¢ per cubic feet to each of these prices, but shall be required to discount that sum for payment by or before the 15th day of the month following that in which the gas was consumed.

SECTION 1239. Street Lamps. Section 3. The city of Des Moines shall pay to the Capital City Gas Light Company for said term of fifteen years for such street lamps as said city may use, and that may be furnished by and gas be supplied from the Capital City Gas Light Company as follows: For each lamp until the number shall reach the total of five hundred, \$18 per year; after the number of five hundred has been reached \$17 per lamp per year for the total number of lamps so used. The gas so used to be paid for by the city monthly. Five foot burners or their equivalent in illuminating power shall be used in street lamps.

SEC. 1240. Quality. Section 4. The Capital City Gas Light Company shall furnish under this ordinance, gas of not less than twenty-two candle power.

SEC. 1241. Purchase. Section 5. The said city of Des Moines shall have the right to purchase, at the price as hereinafter determined, at any term after five years and within fifteen years from January 1, 1896, by giving not less than one year's notice in advance, the Capital City Gas Light Company's property, this right to exist in the city in its corporate capacity, or in the city's trustee, or in the city in any other manner by which the privilege of purchasing may on behalf of the city, be exercised in good faith. To that end, the present value of the Capital City Gas Light Company's plant shall be determined by three appraisers, one of which shall be chosen by the Capital City Gas Light Company, one shall be nominated jointly by the committee on gas light and lamps of the city council, and the citizens' special committee and be confirmed by the city council, and the third shall be chosen by the two thus selected. These appraisers shall file a complete inventory of all the property of the gas company, with their findings. The Capital City Gas Light Company shall furnish the city an annual statement in complete

detail of expenditures for betterments and repairs, verified by the oaths of its manager and secretary. The city to have the full facilities for verification of the same by experts of its own selection. Replacements and ordinary repairs not to be counted as betterments. This statement to be furnished on or before the 30th day of January in each year for the year preceding. In the event of purchase by the city, the actual cost of such betterments is to be added to the first appraisalment, and no more.

SEC. 1242. Time Limit. Section 6. The provisions of 4929 this amendment shall not be taken or construed to in any manner either affirm, recognize or deny any franchise or other rights now claimed by said Capital City Gas Light Company under ordinances heretofore passed, or contract made with said city of Des Moines, and the privileges granted by this ordinance shall absolutely cease at the end of the term of fifteen years for which its specified rates for gas. This amendment shall not be construed as conferring upon the Capital City Gas Light Company an exclusive right for any period of time, to furnish gas to said city or to private consumers, nor to limit or restrain the city or such private consumers from purchasing gas from any other gas company upon such terms as may be agreed upon or may be fixed by legal authority, nor to limit the city of Des Moines from purchasing from any other company, person or persons, or from at any time constructing gas, electric light or any other works that may be adapted to the purpose, either in its own name or through the instrumentality of trustees, or in any other manner, for the purpose of lighting its streets, and of supplying the city and its citizens with light, fuel or power.

SEC. 1242. Suits. Section 7. The Capital City Gas Light Company shall dismiss its suit now pending against the city of Des Moines now pending in the United States Circuit Court of the Southern District of Iowa, Central Division, and shall pay the court costs.

SEC. 1244. Payment to City. Section 8. The Capital City Gas Light Company, as a license fee for each year that it may continue to use the streets of said city in distributing gas beginning January 1, A. D. 1896, shall pay to the city treasurer, for the use of said city of Des Moines, two per cent of its gross receipts for gas sold during such year; the same to be paid semi-annually and within thirty days after the expiration of the preceding six months.

4930 SEC. 1245. Acceptance. Section 9. This amendment shall not become operative or go into effect unless and until the same shall be accepted in writing by said Capital City Gas Light Company, and such written acceptance shall be filed with the city clerk of said city within fifteen days after the passage of this ordinance and not afterwards; and when so accepted this amendment shall be deemed a contract between said city of Des Moines and said Capital City Gas Light Company.

SEC. 1246. Large Consumers. Section 10. That if the said Capital City Gas Light Company shall at any time reduce the price of gas to its patrons below the price fixed in this ordinance, then said Capital City Gas Light Company shall be prohibited during the en-

tire term covered by this ordinance from charging any person or persons or patrons of said company for gas a price in excess of that which said company has charged any other person. This shall not be construed to prohibit special contracts for lower rates to large consumers.

SEC. 1247. Terms. Section 11. All the provisions, terms and conditions of this ordinance shall apply and be binding upon said Capital City Gas Light Company, its successors or assigns.

4931 W. F. DOUTHIRT, being recalled on the part of the defendants and examined in chief by Hon. H. W. Byers, testified as follows:

Q. Who is Mr. Thomas S. Genay?

A. He is Mr. Walton Clark's chief clerk.

Q. In whose employ is he at this time?

A. United Gas Improvement Company.

Q. And in whose employ was he in 1903?

A. The same.

Witness excused.

ANDREW SANGSTER being recalled on the part of the defendants and examined in chief by Hon. H. W. Byers, testified as follows:

Q. You may examine defendant's exhibit 79 and state where you got the information of which Exhibit 79 is a memorandum?

A. The information contained in this Exhibit 79 was taken from a file of the authorizations of the Capital City Gas Light Company. I don't know that the book was numbered or had any title but they are all filed.

Q. And where was this file with respect to the Des Moines Gas Company's office?

A. It was in the Des Moines Gas Company's office.

Witness excused.

4932 Mr. BYERS: Defendant offers and reads in evidence defendant's Exhibit No. 79.

Objected to on the grounds that it is irrelevant immaterial and because containing nothing that has any bearing upon any of the ultimate questions that are in controversy in this case no objection on the ground it is a copy.

Mr. BYERS: Defendant offers in evidence defendant's exhibit No. 80 which has just been marked, a summary of the data on which were based the tables pages 91 and 92 of defendant's exhibit No. 43 and reads the same in evidence as follows:

Objected to as irrelevant, immaterial and as incompetent because not identified by anybody and not shown by anybody to be correct and because there is no evidence showing where it comes or anything about it.

4933

DEFENDANT'S EX. 80.

Summary of the Data on Which were Based the Tables, Pages 91 and 92 (the Latter as Corrected in the Testimony Oct. 5), in Defendant's Exhibit No. 43, Relative to the Seven Massachusetts Companies, Fall River, Lawrence, Lowell, Lynn, Springfield, and Worcester, Being Nearest in Size to Des Moines.

| Year. | Sales in feet. | Gross mfg. cost. | Distribution. | Management. | Taxes. | Incidentals. |
|-------|----------------|------------------|---------------|-------------|------------|--------------|
| 1900 | 1,529,658.694 | \$798,381.65 | \$189,154.22 | 118,22.62 | 101,045.11 | 15,291.88 |
| 1905 | 2,585,356.352 | 1,353,442.74 | 283,352.52 | 151,842.99 | 153,780.34 | 35,555.70 |
| 1906 | 2,819,997.005 | 1,317,755.33 | 308,344.65 | 154,410.06 | 172,413.76 | 41,430.23 |
| 1907 | 3,160,671.179 | 1,493,240.81 | 346,325.36 | 168,822.34 | 180,467.83 | 47,568.24 |
| 1908 | 3,402,736.827 | 1,676,830.14 | 368,238.16 | 175,950.95 | 188,779.45 | 47,959.14 |
| 1909 | 3,678,066.273 | 1,569,398.84 | 352,603.88 | 200,497.35 | 215,249.88 | 43,758.54 |
| 1910 | 3,968,397.562 | 1,602,021.06 | 405,280.24 | 209,174.69 | 289,348.86 | 47,168.69 |

4934

DEFENDANT'S EX. 80.

(Summary of Data, Pages 91 and 92, Continued.)

| Year. | Gross operating. | Income from residuals. | Income from gas. | Other operating income. | Profit. | Depreciation. |
|-------|------------------|------------------------|------------------|-------------------------|--------------|---------------|
| 1900 | \$1,222,084.88 | \$181,360.31 | 1,637,402.78 | \$1,174.25 | \$597,852.46 | 82,691.11 |
| 1905 | 1,977,974.29 | 275,659.31 | 2,517,899.91 | 1,487.75 | 817,072.68 | 110,855.02 |
| 1906 | 1,994,354.03 | 286,379.46 | 2,673,990.37 | 1,548.96 | 967,564.76 | 154,414.54 |
| 1907 | 2,236,424.58 | 299,114.02 | 2,890,958.65 | 8,672.45 | 962,320.54 | 72,111.11 |
| 1908 | 2,467,757.84 | 336,163.01 | 3,064,173.68 | 8,538.79 | 941,117.64 | 72,953.44 |
| 1909 | 2,381,508.49 | 330,694.64 | 3,161,688.94 | 8,679.86 | 1,119,554.95 | 112,062.66 |
| 1910 | 2,552,993.54 | 323,834.38 | 3,398,280.99 | 10,173.57 | 1,179,295.40 | 133,931.03 |

4935 JAMES HALL being recalled on the part of the defendant and examined in chief by Hon. H. W. Byers, testified as follows:

Q. Have you worked out from Mr. Hagenah's report the investment that would result from his tables say, from July 1, 1886, to December 31, 1910?

A. Yes, sir.

Q. And what would be the figure?

A. The investment in the plant stripping the Wisconsin theory of any anticipated returns and simply accepting his opening balance 1886, using his additions as shown in his statement, take out his two per cent depreciation will give a net investment December 31, 1910, \$1,671,456.

Court: At six per cent?

A. No, sir; stripping the thing altogether of any interest calculation. That includes the \$120,000 paid for the \$105,000.

Cross-examination by N. T. GUERNSEY, Esq.:

This computation is based upon the investment figure shown in Mr. Hagenah's report?

A. It is based on his original value of 1886 plus his additions as shown by his report.

Q. What I want to get at is the basis for your statement. His report as I recall it was Exhibit 23.

A. Not his report, it was the big statement, I don't recall the number of it.

Q. You mean the sheet marked Exhibit 26?

A. Yes.

Q. You take out of that his valuation, that column—no, you didn't?

A. I accepted his opening figure.

4936 Q. You took his \$308,983 to start with?

A. Yes.

Q. Then you add to that the additions to the plant as shown in the column additions to plant, including working capital.

A. Yes.

Q. Then you deduct from those amounts the two per cent on the amount which you have each year?

A. Yes, the two per cent as shown in the sixth column.

Q. You took the column that Mr. Hagenah has depreciated at two per cent on depreciable property and deduct the sum of that column from the sum of \$308,983 and the sum of the column headed additions to plant including working capital?

A. Yes, sir.

Q. That is your whole computation?

A. Yes, sir.

Redirect examination by Hon. H. W. BYERS:

Q. And is that worked out in this sheet marked by the reporter defendant's exhibit No. 81, is it shown by the first four columns of figures?

A. First four columns of figures.

Q. Beginning with investment at the opening of year and ending with investment at the close of year?

A. Yes, sir.

Mr. BYERS: Defendant offers in evidence defendant's exhibit No. 81 just identified by the witness Hall.

Complainant objects to it as irrelevant, immaterial to any question here because it does not purport to have any bearing upon value upon any theory.

Witness excused.

Here the further hearing of this case was adjourned until 9:30 a. m., Tuesday, November 14, 1911.

4937

Tuesday Forenoon Session.

NOVEMBER 14, 1911—9:30 a. m.

Counsel for the respective parties all present.

Pursuant to the adjournment heretofore entered the hearing was resumed as follows:

The MASTER: Is there anything you desire to present Mr. Byers with respect to this amendment?

Mr. BYERS: I would like to be heard just briefly on it, if your honor desires to take it up at this time. Counsel for defendants offer this amendment for two reasons. We have, as your honor well knows, a statute in this state which provides that every action shall be prosecuted in the name of the real party in interest, with certain exceptions, which are stated in the statute. The federal court of course recognizes that statute, and in all cases where the question is raised, examines the record and pleadings for the purpose of determining whether the statute has been violated. Now we offer the amendment, first, because we believe under that statute it is proper to plead it at this time in the way we did. There is another reason why we offer the amendment, and that is because we contend and are fully satisfied that the record discloses a condition involving this local concern and the United Gas Improvement Company, which makes the operation of that concern illegal, that is to say, under the recent decisions of the Supreme Court of the United States, involving the American Tobacco Company and the Standard Oil Company, the parent company here is operating in this country in violation of the statute of the United States, and if that of course be true, if we are within any reasonable distance of the truth of that statement, the United States court of course, would grant relief in an action of this kind, even if the real party in interest was

4938 here prosecuting this action. That is to say, if this holding company, and I think it would be ridiculous for anybody conversant with this record to contend for a moment that it does not appear beyond controversy that the United Gas Improvement Company is the holding and parent company, if I may use this term, and that the Des Moines Gas Company is a mere fiction, a mere name

of the local concern for convenience. Now we deemed it proper and really our duty, in view of the recent decisions of this court to suggest this situation in the pleadings.

There is another reason why we urge it at this time and why we set it out in an amendment and ask to have the amendment filed, and that reason is this: it goes to the jurisdiction of this court, I think your honor will concede promptly, and counsel will probably not dispute the proposition that if the United Gas Improvement Company is the real party in interest here, and that is a matter of course that cannot be established by argument, but must be found from the record with which your honor is fully conversant, but if the United Gas Improvement Company is the real party in interest, as we contend in this amendment, then this court is without jurisdiction to try this proceeding at all, and while it might not be necessary to raise that question at this time by way of amendment, I am satisfied that it is a proper way to raise it and the proper time to suggest it. The action, as you- honor knows, is being prosecuted in the name of the Des Moines Gas Company and was commenced in this state and in this circuit. The United Gas Improvement Company is a foreign corporation with its principal place of business at Philadelphia, Pennsylvania, and if it is the real party in interest this court is without jurisdiction, and any order or decree finally entered here would be a nullity, if we are right in the contention that 4939 the United Gas Improvement Company is the real party in interest. That is all I care to say at this time. The resistance is simply, that the proposed amendment presents matters wholly redundant and immaterial.

The MASTER: It has struck me, on examination of the question, I am not very familiar with the pleadings, etc., in chancery practice in the United States Courts. I have had a little to do with it at different times, but never enough to make myself fully conversant with it. I recognize the rule in the chancery practice of the United States Supreme Court governs rather than our state law. It struck me that your denial here puts that question in issue. Practically every allegation down to the last clause in the amendment is proven or not denied at all. That the United Gas Improvement Company owns the stock of this company, there isn't any question about that. They dominate it, and there is no question about that. If they do not have the right to dominate it, who would?

Mr. BYERS: Nobody.

The MASTER: If they are stockholders, they have a right to dominate it. But now you have another allegation here: That it is the purpose and policy of the said United Gas Improvement Company to own, control, manage and operate gas works throughout the United States by and through subsidiary companies to the end that it may exercise exclusive power and control over said gas industry, and to use said subsidiary companies, or any one of the same, as its interest may be affected, to obstruct, hinder and delay the state or the appropriate subordinate agency thereof, in the proper exercise of its police powers; more particularly, in respect of the regulation and control of such public utilities in fixing reasonable rates for gas manufac-

4940 tured and supplied by said subsidiary company, and to thereby control the price of gas manufactured and supplied to municipalities and the inhabitants thereof. That in truth and in fact, everything pertaining to the ownership, control, management and operation of the complainant, the Des Moines Gas Company, is vested in, exercised and controlled by said United Gas Improvement Company; and that the complainant, Des Moines Gas Company, has not such interest in the subject matter of this controversy as entitles it to maintain this action against the said City of Des Moines and its officers, and is not entitled to any of the relief asked in its bill of complaint or in the amendment to the bill of complaint.

Now, would any court of chancery, if these allegations were found to be true, that it is an illegal corporation, whether it is pleaded or not, grant any relief?

Mr. BYERS: It would not make any difference.

The MASTER: If I should find those facts to be true, I would unhesitatingly recommend the dismissal of the bill. As to the other matters pleaded in there, every word of it is true. Strictly speaking, the United Gas Improvement Company is trustee for its stockholders in this plant, and the Des Moines Gas Company is the trustee for the United Gas Improvement Company, of its stock. So that I am not going to pass on the question now. I think that really every issue is raised. But if there is any doubt about it, it is possible this amendment should be allowed.

Mr. BYERS: Just a word in response to the suggestion about the rules. I think there is no rule better established, more firmly established, and one which is universally conceded, and that is that the courts of equity of the United States look through and beyond all technicalities, subterfuges, and pretenses in the matter of parties. There is no court anywhere that is so jealous of the rule that relief cannot be had in a court of equity upon any pretense, or by 4941 a party who is representing not himself but somebody else; that rule is firmly established. I may say, your honor, that I agree fully with the suggestion of the court, that if what is alleged there in the paragraph the court read, should appear at any time during the progress of this trial, whether here before your honor as Master, or before the court upon report, or finally in the United States Court, if it ever gets there, these parties would not be entitled to relief; but that of course is not a conclusive reason why the allegation should not stand. It oftentimes answers a very good purpose, and we filed it because we thought we found a situation here that required it.

Mr. READ: I surmise, a court of chancery would even protect the property of a malefactor. I do not understand that the property rights are to be invaded because of the moral delinquency of the owner. I understand it again to be true, that whether there is a combination in restraint of trade under the Sherman law or other legislation of congress, can only be ascertained upon the complaint of the government. I mean it cannot be adjudicated—for instance,

that the United Gas Improvement Company is an illegal combination, except and only upon the bill of the government.

But now if your honor will permit me I have a few words to say upon the general subject. If this amendment is to be allowed, it should be only because it presents some matter not presented by the record, otherwise that ought to be brought to the attention of the court and that constitutes a defense to this suit, or that is in aid of some other allegation contained in the answer to complete a defense pleaded. Unless it does that, then this is wholly and entirely immaterial, and because it is, as we regard it, immaterial and presents no defense, therefore the objection and resistance to its filing is presented. There isn't any occasion for presenting immaterial issues. Now, does this present a defense? The claim is that the Des Moines Gas Company, the complainant is not the real party in interest.

The MASTER: Right there, can that question be passed upon on an application for leave to amend?

Mr. READ: That of course is a legal question that arises upon this record. It either is or is not the real party in interest. Now if the rule of the state statute prevails and obtains in this suit in chancery, then if it is not the real party in interest, it has no right to maintain this action and it should be abated, and for that reason that question has to be met. I want to meet it now. Your honor made an observation a moment ago that I want to correct. So far as the amendment claims the United Gas Improvement Company is the owner of all the stock of the Des Moines Gas Company, that is true. The United Gas Improvement Company, like any other stockholder, does control the affairs of the company; that necessarily is true; that is the function of the stockholders. But there are allegations here that are not true. For instance, here is this allegation that each and all of the shares of the capital stock of said complainant, the Des Moines Gas Company, and all business, property and assets thereof are owned, controlled, operated and managed by the said United Gas Improvement Company. Of course that is not true in that broad sense.

The MASTER: Not directly, but indirectly it is true.

Mr. READ: It is the ownership any of the stockholders exercise, in that sense it is true.

The MASTER: That is perfectly legal too, because if the stockholders do not have the right, there isn't anybody has it.

Mr. READ: At that point arises the very question we are interested in. The assertion on the part of the defendant is, because of this ownership of the capital stock of the Des Moines Gas Company, therefore the claim is that the Des Moines Gas Company has no legal interest in the property; that it is owned by the United Gas Improvement Company and that therefore the United Gas Improvement Company is the real party in interest and only can maintain this bill. Now is that true? That is the test of the whole thing. The question is whether or not the Des Moines Gas Company has such an interest in this property as that it can main-

tain this bill. That proposition is denied by the other side, and the suggestion and claim is that because of the fact that the United Gas Improvement Company owns all of the capital stock and is a corporation engaged in the business of operating gas companies through its ownership of stock, therefore that the Des Moines Gas Company cannot maintain this action. In other words, the claim is, that because of the facts asserted, the ownership of stock and control of the corporation and the corporate property, there results a merger of the Des Moines Gas Company; it is absorbed and coalesced in the United Gas Improvement Company, and the United Gas Improvement Company only can maintain this action.

The MASTER: I do not believe I care to hear you on this question. I am frank to say that the Des Moines Gas Company is really the only party that could maintain this action, unless they refused to do it and the stockholders would come in on their own account, for the simple reason that the Des Moines Gas Company holds the legal title, and holding the legal title of this property, and in trust, with the powers conferred upon it, that gives it the authority. It struck me all the time that the general denial raised that question. So that I do not think it is necessary to discuss this question. In relation to the other question, they claim that it so dominates and controls this company that under the United States statutes it has become a monopoly, a conspiracy and all those things. Now that is the question that I prefer to hear you on.

Mr. READ: The other question is elementary. It is everywhere held that ownership does not merge a corporation, and the only right of action to allow the stockholder to sue, is in the corporation. What is the other proposition? That the United Gas Improvement Company is a combination in restraint of trade. That may be true. But here is the Des Moines Gas Company owning this property: possessing the legal title and possessing the sole and only right to sue and to protect their property. That is the proposition that your honor announces, and that is the proposition that Mr. Byers announces. Now the suggestion is that the Des Moines Gas Company, which is a legal corporation, cannot maintain this action, because the owner of its stock is a combination in restraint of trade. That does not sound like a reasonable proposition at all, and that is what it is reduced to. As I said a moment ago, my understanding of the law is that the government alone can be a party and institute a bill and declare or dissolve a corporation because it is in restraint of trade. But we have not that question here, because there is no attempt to go to that extreme and the only attempt is to deny the right of the owner of this property to protect it from confiscation. The City says by its amendment as construed in this presentation, that the Des Moines Gas Company ought not to be allowed to maintain this suit, for the protection of this property against confiscation, because the United Gas Improvement Company, the owner of all the stock in the Des Moines Company, and the owner of the stock in other companies is a combination in restraint of trade. I do not imagine that this court is going to sit and determine that question in this

case. If that question is to be inquired into, it ought to be
 4945 in proceedings instituted for that purpose. It ought not to
 be incidentally dragged into this case and at this stage of the
 hearing.

The MASTER: Right in this connection, I will call your attention to this thought: There isn't any question in my mind but what the Des Moines Gas Company is the creature of the United Gas Improvement Company. It is the creature of it as every corporation is the creature of its stockholders. If that was created as a part of a conspiracy in restraint of trade—it is a sort of a puzzle to me whether it could be in this kind of a utility—but suppose it is in restraint of trade, and that was very clearly to appear here, would it have any standing in a court of equity?

Mr. READ: I do not think this court would entertain that question. That question could only be raised by the state, under the state laws, only by quo warranto. Mr. Guernsey suggests to me: suppose the City were to lay off a street through the ground owned by the Des Moines Gas Company without making compensation, simply appropriating it, and the Des Moines Gas Company should appeal to a court of equity for protection, according to General Byers, it is a sufficient answer to say although you are not a trust yourself, you are owned by a corporation which is a trust in restraint of trade and therefore illegal, and you cannot be heard to invoke the powers of a court of equity to protect your property. Of course that is an absurdity. So that as to the question just suggested, I do not think for one instant that the fact that the Des Moines Gas Company is a corporation whose stock is owned by the U. G. I. Company, which may or may not be a combination in restraint of trade, at all militates against the right of the Des Moines Gas Company to a standing in court to protect itself and its property against appropriation without compensation or against confiscation.

4946 Mr. Byers alluded to the Des Moines Company and called it a mere creature or dummy corporation. Now it is true that under certain circumstances and for certain purposes a dummy corporation will be disregarded and the courts will look beyond to the real party in interest. I looked up the matter recently—for instance, where a person has been engaged in business and sells out and agrees not to engage in business in the same community for a term of years. Suppose he shall form a corporation and the corporation engages in that business. The courts will look after the corporation, and finding the party who agreed not to engage in the business behind the corporation, will enjoin it, so as to prevent frauds and protect the creditors of a corporation which has taken refuge behind a dummy corporation, the courts will look through and beyond the corporation to protect the real parties and subject the property to the real owner. No such question is here involved. There is merely involved the question of a court of equity to protect the property from confiscation. Now if it should appear from this record that the U. G. I. Company, which owns the capital stock of the Des Moines Company, is a combination in restraint of trade, will this court for that reason deny the Des Moines Company relief? As I said a moment ago, I cannot conceive that this court will enter upon that

question at all. I don't think you have any jurisdiction or power to do so, because the government has not made any complaint or filed any bill, and the government alone can file a bill for that purpose.

Mr. BYERS: I do not care to follow counsel upon his questions of technical pleading and rules. If they are content and satisfied with the suggestion that this amendment is absurd, that is entirely
4947 satisfactory to us. I only respond for the purpose of dissenting to two suggestions the Master made and counsel very promptly acquiesced in. The first one is that the party or corporation holding the legal title is the only person that can sue and is the proper person that can sue. I dissent from that statement for the reason that it has no application whatever in what we are trying to establish here, or what this pleading goes to. It is a general rule which no one would dispute and we have the statutes in this state which permit action to be prosecuted in the name of parties who do not have the equitable title or who do not have an absolute beneficial interest. But here is what I contend and that proposition I want—since this record is being taken down—I want to state it now, in view of what the Master has said. The books are full and the United States Court decisions are numerous in which they hold that a person or corporation that has the legal title is not the legal party — interest and cannot prosecute the suit. I do not think counsel would contend for a minute that the legal title was in the name of the party simply for the purpose of convenience or carrying out the original plan or scheme, such as we try to plead here, and our pleading rests upon the record and the evidence that is here with respect to the manner in which the Des Moines Gas Company had its birth and its creation. Another reason why I do not care to spend much time is because the pleading is here, the question is raised, and it is raised in the only way we know how to raise it, and it is in this record and of course will stay in here to the end of the road, wherever we go. But it is not true, in my judgment, that the general rule that the person having the legal title may bring suit, can be applied to that class of cases where the holder of the legal title is the holder simply for the purpose of carrying on the plan or scheme we contend is contrary to law.

4948 Now as to the question of the government being the only party that could appear and prosecute an action, that is conceded. We are not asking that the United Gas Improvement Company be dissolved or that it be put out of business. We simply suggest by and amendment here that if what we say is true, what we think the record shows, they are not entitled to relief in a court of equity. I want to dissent from counsel's suggestion that the stockholders always run the business of the corporation. That I do not think is correct. As a rule the stockholders do not operate the business. The ordinary business of a corporation is conducted by the directors and officers who are selected for that purpose by the stockholders, and we contend this is an entirely different situation from the exercise of the power that the ordinary stockholder has in the conduct of business in which he holds his stock. This is the situation where a holding company, a corporation is controlling and op-

erating the business of another corporation, and it is doing it through stock ownership. That is the very question which is covered completely in the two recent decisions I referred to a moment ago.

Mr. READ: That depends on what the inquiry is. Here the inquiry is whether this property, the legal title of which is held by the Des Moines Gas Company, will be confiscated.

Mr. BYERS: Just one further suggestion. Counsel cited a case that I think in all of that class of cases, the very rule I am contending for is laid down; that is the dummy case that he cited. The illustration he gave, where one person sold out his business and contracted not to go into the business again, and then organized a corporation in order to evade and get around his agreement with his purchaser and pretends to operate his business through the corporation, that 4949 is exactly the rule of law that applies to this case; that is, this mere pretence, mere name—they might as well call it a branch gas company; they might as well call it the Des Moines branch of the United Gas Improvement Company. The rule that he cited applies here.

Mr. READ: I just want to call attention to some adjudicated cases upon this question, upon the effect of the unity of ownership. Here is a statement of the general rule as laid down in the text books: Distinct corporations may have the same officers and shareholders and this does not operate to merge the two corporations into one.

In *Missouri Pacific Ry. Co. vs. Bolling*, 48 Pac. 806, the court said: "But the evidence shows that the two companies remained separate corporations, and that they, by consent, appointed or selected the same persons as officers in each company to reduce their expenses. The facts stated do not show that the existence of one was merged in that of the other. The corporations, and their officers and stockholders, are separate persons. The stockholders and officers might be the same and the corporations different."

So in *Fitzgerald vs. Railway Co.*, 45 Fed. 812, where it is said: "The owner of all the stock and bonds of a corporation does not own the corporate property. The corporate property, which includes all rights of action and claims for damages belongs to the corporation and is subject to the management and control of its board of directors."

Mr. BYERS: That is conceded in that class of cases.

Mr. READ: Counsel say they concede that and yet they advance a proposition directly in the teeth of this fundamental proposition. Unless they go to the proposition that because the owner of stock in the Des Moines Gas Company is a corporation which owns stock in other corporations carrying on a like business and which has 4950 never been adjudicated to be an unlawful corporation, therefore the corporation owning the property is deprived of the right of maintaining an action for its protection. I think I am entirely justified in saying that kind of a proposition is an absurdity.

Mr. GUERNSEY: Under the Texas law a foreign railroad corporation could not own a railroad there. In a case decided by the United States Supreme Court the record showed that this Rock Island Company of Texas was organized by the Rock Island Railroad; it owned all the stock; the officers were identical; that the

conductor was employed by the Rock Island Company until he hit the Texas line and then was employed by the Rock Island Company of Texas, and the same way with all the other trainmen. The Supreme Court of the United States in a recent case, to which I can give your honor a reference, held they were separate and distinct corporations and that they were not merged, and held it on a jurisdictional question.

Mr. READ: The American Bell Telephone case, 117 N. Y., is identical. It was there stated that the Bell Telephone Company owned a lot of concerns and therefore could not maintain actions for its protection. Here the claim is because the stock of the Des Moines Company is owned by the United Gas Improvement Company, which is a bad corporation, a bad combination, not a good one, that therefore the Des Moines Gas Company cannot maintain this action to protect its property from confiscation, and that in a hearing such as this, this court would enter upon the inquiry whether the U. G. I. Company is a good trust or a bad trust.

Mr. BYERS: I do not want counsel to get the notion now that we are contending for a single moment that there cannot be such a thing as a legitimate ownership of stock by one corporation in another corporation. That question is put at rest, at least in 1891 this state. It is not a question of legitimate ownership of stock by one corporation in another. Our contention is that the stock, the manner of *golding* it, the issuance of it in the first place, and all the acts done in connection with it is a mere pretense and is for the purpose of carrying out this scheme and plan of the United Gas Improvement Company. Of course, the court has many times held where one corporation held all the stock in another corporation, that did not make the holding company in the sense of the term ownership is used, the owner of the property of the corporation in which it owned all the stock, because the property was subject to distribution according to the laws of the state in which the corporation existed and was doing its business. But in these two decisions I have called attention, all of these questions are reviewed and the suggestion by counsel that the authorities he refers to apply where this question is raised, a question that goes clear back to the beginning, they wiped them out as so much dust. **You take the American Tobacco Company**, it has stores in this town and stores all over this country, operating under separate organizations, and yet the Supreme Court of the United States have no trouble looking through and beyond this mere pretense.

Mr. READ: That suit was to dissolve this combination.

Mr. BYERS: Yes, sir. I understand the Master will refer the matter to Judge McPherson.

The MASTER: Certainly.

Mr. BYERS: Of course if counsel furnishes authorities we would like to see them.

The MASTER: The evidence introduced and offered in this case tends to show that the United Gas Improvement Company became the owner of the Capital City Gas Light Company's stock 1892 about the 1st of June 1886, and at that time it had an authorized capital stock of \$300,000.00. Later the capital

stock was increased to \$600,000.00, but owing to the growth of the gas business in the City of Des Moines, and on or about the 28th day of February, 1906, the United Gas Improvement Company still owning their stock caused to be formed the Des Moines Gas Company with an authorized capital stock of \$2,250,000.00 and at that time became the owner of all the stock so authorized by the Des Moines Gas Company and the property of the Capital City Gas Light Company of the City of Des Moines connected with the gas plant was all at that time conveyed to the Des Moines Gas Company and the Des Moines Gas Company then became the legal owner as a corporation under the laws of Iowa, and all that property that had been formerly owned by the Capital City Gas Light Company, and the legal owner as a corporation of all the extensions and improvements since made. The United Gas Improvement Company as a corporation under the laws of Pennsylvania, and as owner of all the stock, has elected the officers of the Des Moines Gas Company ever since its organization on the 1st day of March or last day of February, 1906, and through those officers have dominated and controlled the property and business of the Des Moines Gas Company and continues to do so. The Des Moines Gas Company holds its property in trust for its stockholders and is clothed with the authority and power conferred upon it by the laws of Iowa. The incorporation appears to be regular in every respect. Practically all the allegations contained in the proposed amendment, down to the fourth line of the bottom of the second page of it, are true, and in the opinion of the Master the United Gas Improvement Company as owner of the stock would have the right 4953 to elect the officers, dominate and control the business of the Des Moines Gas Company through its officers so elected by them. The only evidence that has any tendency to establish the allegations contained in the next paragraph is the fact that the United Gas Improvement Company owns and controls the stock in from 30 to 40 different gas companies in the United States, and operates gas works in the city of Philadelphia, Vicksburg, Miss., and Waterbury, Conn., and the possible further fact that it has prosecuted this action very vigorously and spent a good deal of money at it.

MR. BRENNAN: We think the manner in which the alleged salaries were paid, which finally reached the United Gas Improvement Company, were not paid to the officers named, is also a question to be considered.

The MASTER: I doubt very much whether that is a legal charge in a rate question at all. As to the question of whether or not the Des Moines Gas Company has a right to maintain this action as the legal owner of the property, the Master is inclined to think that it has that right under the evidence in this case, but is also inclined to think that question is raised by the general denial in the bill. The other questions I shall refer to Judge McPherson, together with the claims of counsel which are set forth in the argument, will be transmitted with the recommendation. Counsel for complainants claim any question of illegal monopoly can only be

raised by the government in an action for that purpose, and as your honor is more familiar with the law touching that question it is referred with the foregoing statement, to be determined by your honor.

The fact that the United Gas Improvement Company owned and controlled the stock of the Des Moines Gas Company was disclosed early in the trial. I am not sure whether it was a part of the opening statement or not. The number of the corporations whose stock it owned was not disclosed until later, and all the facts that may bear upon the matter in the amendment were not disclosed until along toward the latter part of the trial, especially that part with reference to the money expended in the prosecution of this action.

Mr. READ: Is there any question at all as to where the legal title is in this property?

Mr. BYERS: Not if you mean by that any question about the form of the articles of incorporation or the proper filing and the transfer of the property; we proved that ourselves.

The MASTER: The legal title to this property and all its extensions is in the Des Moines Gas Company, and the legal title to the stock of the Des Moines Gas Company is shown to be in the United Gas Improvement Company. Counsel for defendants say they do not desire or expect to offer any additional testimony than that already offered.

Mr. BYERS: I do not know what form we are going to proceed here; there may be some additional testimony.

Mr. READ: On this point we will introduce the deed of conveyance, the transfer of the property.

The MASTER: My recollection is the deed is in evidence.

Mr. GUERNSEY: This is perhaps what the situation is: that the corporate record very likely showed a copy of the deed that was authorized, but I do not believe the deed itself has been introduced.

Mr. BYERS: We offered the record. We have never seen a deed that I know of of any kind.

Mr. GUERNSEY: It won't take but a moment to introduce that deed at any time. It certainly can do no harm.

Mr. BYERS: Certainly not.

The MASTER: The Master further states that the following clause in the amendment to-wit, that all extensions made to the distribution system of the gas works in the city of Des Moines, Iowa, and all other additions and improvements to the plant and property used in the manufacture and distribution of gas in said city, are made by authorization of the said United Gas Improvement Company through the officers of the Des Moines Gas Company who are at the same time officers of the United Gas Improvement Company.

I might further state that the evidence shows that for all extensions and improvements of the gas plant at Des Moines requisition is made on the engineer of the United Gas Improvement Company who is at the same time the engineer of the Des Moines Gas Company, and they are accompanied with recommendations and statements of the manager here, and upon these recommendations, they

are passed upon by the engineer, and the cost of them approximated or ascertained as nearly as possible, and then they are submitted to the officers of the Des Moines Gas Company, who are at the same time the officers of the United Gas Improvement Company and they purport to be authorized by and in fact are authorized by the officers of the Des Moines Gas Company, all of whom reside in the city of Philadelphia, and the records of this company are kept at the city of Philadelphia, and the board of directors holds its meetings in the city of Philadelphia and passes resolutions and transacts the business of the Des Moines Gas Company, so far as the acts of the board of directors are necessary, at the city of Philadelphia.

Mr. BYERS: There is an important statement there that I do not think appears from the record at all. In fact I think the
4956 opposite appears, that is, that an engineer of the Des Moines Gas Company ever passes on these requisitions at the Philadelphia end. The evidence is just to the contrary, that it is the engineer of the United Gas Improvement Company and not of the Des Moines Company.

Mr. READ: Mr. Clark is one of the vice presidents of the Des Moines Gas Company and he is an engineer, and it is to his department, as I understand it, the matters are referred.

The MASTER: The engineer of the Des Moines Gas Company at the city of Philadelphia is not the resident engineer at Des Moines, but is a consulting engineer and as such passes upon the wisdom of making extensions and improvements.

The Master calls attention to the suggestions made by counsel and the briefs offered by them upon the question and submits the matter to his honor, Judge McPherson, for decision.

Are you ready to proceed with the arguments?

Mr. GUERNSEY: There are two or three exhibits we have identified but which have not been formally offered which we desire to offer now.

Complainant offers in evidence Exhibit 38 which has not been heretofore offered.

Complainant also offers in evidence Exhibit 44 which was not offered heretofore, which is a computation relative to some Massachusetts cities.

Complainant offers in evidence Exhibit- 65 and 65-a, which were identified and not offered, also referring to some Massachusetts reports.

Mr. GUERNSEY: The working sheets which Mr. Hagenah
4957 used in Buffalo were identified and offered, with the agreement at that time that typewritten copies could be substituted. They are Exhibits 83 to 87 inclusive. We have here the typewritten copy and would like to substitute for these working sheets these copies. We will furnish copies for the other side.

Since the adjournment in the month of October, in order to bring the sales as nearly down to date as possible, we have had them added to the sales of the first eight months, so that we have ten months of sales for this year, and I will ask to have this marked Exhibit 91, and we offer it in evidence.

Mr. BYERS: It is understood that the defendants reserve the right to examine it.

Mr. GUERNSEY: We have also the operating costs figured out in detail covering ten months for 1911. It has not been entirely checked; at some convenient time we will offer it in the same way.

As I stated when we took the adjournment, if we could get Mr. Alvord here, we would like to ask him one or two questions in respect to overhead charges. Mr. Alvord is here now.

Mr. BYERS: I want to mention now, in addition to the question put to Mr. Haines and Mr. Douthirt which are still unanswered, we want a certain voucher that is at the gas office, showing the taking of testimony, the testimony of Mr. Baehr, and Mr. Lea and Mr. Hagenah and perhaps some others, in February last, and showing the amount paid, the voucher covering that whole question. We would like to have Mr. Haines have it here after dinner so that we could introduce it. It is a matter involving the taking of testimony and the record of it we only discovered after adjournment of court in our further examination of the records.

4958 JOHN W. ALVORD, being first duly sworn on behalf of complainant, examined in chief by N. T. Guernsey Esq., testified:

Q. Where do you reside?

A. I live in Chicago.

Q. What is your profession?

A. I am a sanitary and hydraulic engineer.

Q. In your engineering work you have specialized with reference to things in connection with water works usually?

A. Very largely, yes; municipal work as well, of all kinds.

Q. Give us in a general way what your experience has been.

A. Well I have been engaged for the past thirty years in various kinds of municipal work, largely water works, sewer systems, filtration works, water power works and reservoirs, and all of the physical constructions that go with these lines of work. I have been consulting engineer for quite a number of years, and in one way or another been connected in some capacity with over one hundred water works and perhaps over sixty sewer systems in various cities, and with perhaps twenty odd water power projects and with ten or fifteen filtration plants, and works of kindred nature.

Q. In what parts of the country has this work been, Mr. Alvord?

A. Very largely in the middle west, although in isolated instances it extended all over the United States.

Q. And were you recently one of the board of experts that the government took to go to Panama in connection with some trouble there in their work?

A. We were invited by the President to visit Panama.

Q. That was this spring or summer?

4959 A. Yes, sir; in March.

Q. You were recently president of the American Water Works—what is the title?

A. American Water Works Association. I was President in 1910. I was also President of the Western Society of Engineers in 1910.

Q. To what extent has your employment been by municipalities, Mr. Alvord?

A. Roughly, three fourths of all my work has been done for municipalities. All of my earlier work for some twenty years was done for municipalities, and of late years some work for private corporations, largely water works companies.

Q. Were you the engineer employed by the city of Omaha in the Omaha Water Works controversy, in the valuation there?

A. Yes, sir; I was one of the board of three appraisers that was appointed to make a valuation of that plant.

Q. What I wanted to get at, whether you were the one designated by the city?

A. By the city, yes sir.

Q. In the Des Moines Water case you were the engineer that valued the plant for the Company?

A. Yes, sir.

Q. Now, Mr. Alvord, I wish you would state to the Master whether there are certain underlying or overhead expenses which are inevitable incidents to every large engineering work?

Objected to on part of defendants as incompetent, immaterial, calling for a conclusion and not rebuttal, being a part of complainant's case in chief.

A. Yes, sir; there are such important items in every enterprise.

Q. Now what efforts have you made and what study to qualify yourself to accurately estimate these items of expenses?

4960 Same objection.

A. Why in the course of my experience I have had to learn there were such items and that they had to be allowed for, and more recently in connection with the work of the valuation of public utilities I have made some further study of these so-called overhead charges and I have collected considerable information about different cases, wherever they occurred, so as to verify my experience.

Q. Now there has been prepared in connection with this case a very complete inventory of the physical property that goes to make up the property of the Des Moines Gas Company. I wish you would state whether or not the fact that there is such an inventory renders it practicable to disregard these underlying or overhead expenses, or whether it obviates the incurring of these *these* expenses?

Objected to as incompetent, immaterial, not a matter of expert investigation. For the further reason that it is not rebuttal and the testimony evidently is offered for the purpose of establishing the propriety of certain overhead charges in this case, and the addition of such charges to the value of the property, and the record at this time shows that whatever of overhead were actually incurred by this company, appear upon the books of the company, and the original and best proof as to every question of overhead charges is within the reach of the complainant and can be found in its books, and the —

along these lines by this witness for that reason is not the best evidence.

A. It does not in my opinion. The inventory is in, of course, the nature of the plans and specifications, or what would be
4961 a plan and specification for the new works, and has to do with the physical property and the various steps of progress, but does not in any way obviate the necessity for incurring contingencies during construction—contingencies that may vary in even reduplicating the same property. For instance, it may be known precisely what contingencies were met in building—

Objected to on part of defendants to the statements of the witness because the question has been fully answered.

(Answer continued) the present plant. But it by no means follows that these same contingencies would be again met with if it were necessary to rebuild the plant, and indeed, in all human experience it has been shown that the same contingencies would not be met and that other contingencies would probably be met, and it is so in all undertakings of this kind which involve human forecast, that there must be an allowance of the unforeseen in such cases—allowances which the inventory can not describe nor specify.

Q. Into what classes do you divide these underlying or overhead expenses or costs?

Same objection as last above.

A. For convenience, in keeping the subject clear, I have always found it desirable to subdivide them, much as they would be naturally subdivided in the undertaking of any project. The very first subdivision would be the promotional expenses; that is to say, the effort of conception of this entire project; the initial and general investigations that would be necessary; the assistance of legal and expert engineering advice, to formulate and shape the project as a whole; and the organization of a company and the acquisition of the necessary rights and privileges. Up to the time when
4962 these rights and privileges are acquired, this seems to constitute one distinct step which might be named the preliminary or promotional expense. Then naturally we come to the second step, which is to construct the necessary works. Here we come against the necessity for maintaining administrative, organization officers, accountants, general manager's offices which shall conduct the work of installing the necessary physical construction. This makes what I would like to call the administrative expenses. Then as a large part of the operative work of that period there comes the design, the detailed plan and specifications for all the various physical constructions that enter into the project, and their supervision, the setting of the lines and grades, necessary directions to the contractors, the issuing of estimates and the testing of completed works and of putting, the tuning up of the completed works, and putting then into operation. This is the engineering of the plant. Then during this construction there are certain items which are underlying. I prefer to call those items underlying rather than

overhead charges, because to my notion they are fundamental; that is to say, no physical construction can precede them; physical construction must be built upon them. They are to my mind the underlying charges as against the physical construction. Among others are the question of the cost of keeping money idle in construction which is not yet completed, and another item, that of taxes and insurance on uncompleted works, casualty insurance and other insurance, and the item of contingencies; that is to say, after having forecast everything which human experience can think of, we find there are still things that will occur that will cost us money.

The MASTER: Right there you speak of taxes and interest.
4963 What do you mean by that?

A. Well in works that extend over a considerable period of time, there may be a tax upon the works in their uncompleted state. For instance, a plant which takes from three to six years to build, and is a private property subject to taxation, is quite often taxed accordingly.

The MASTER: Then you mean taxes on the property during this construction that is not earning any money?

A. That is not yet earning.

Q. Would you class that as a part of the going value or physical value?

A. That would have to be, to my notion, added to the capital cost, because there is no other place to charge it as a part of the physical property, and I think I would classify it as a part of the going value.

The MASTER: What is known as the going value, would you class the taxes and lost interest as a part of the physical value or a part of the expenses in developing the business?

A. I think it is a part of the business development of the capital cost of the plant, for the reason that it is automatically invested. By the time you have finished your physical property and before you commence to acquire your going value, you must have invested this interest which is not capable of being earned on the moneys invested in the physical construction.

Q. You class it rather as a part of the establishing of the business than as a part of the physical value?

A. It occurs also again in the going value, from the fact that with the physical property thus completed together with the automatically invested interest which accompanied it you must in return acquire a revenue which will be a return to that capital.

4964 The MASTER: How do you figure that in this particular case?

A. Supposing it takes the project three years to be completed, the physical property, in that three years you have automatically invested the interest on the money which you have put into construction, because you have been unable to earn it elsewhere. You have taken your money out of the channels of earning and put it into channels where it does not earn. When you have completed your physical property you then have to acquire or reproduce in this case the revenues which the company is possessed of.

The MASTER: Wouldn't the effort of producing revenue be a part of the going value rather than a part of the physical value?

A. Yes, sir; certainly, that would not be a part of the physical plant.

Q. Let me see if I understand you correctly. Your idea is this: that the two items the Master speaks of, that is the interest and taxes, would be considered by you or classified by you as a part of the cost of reproducing the physical property up to the time that the property was completed, so that it could earn and operate?

Objected to as incompetent, immaterial and not rebuttal.

A. Yes, sir.

Q. And after that you would take that into account in ascertaining the losses to measure the going value?

Same objection and leading.

A. Yes, sir. There is one explanation I might make there, that going value as I conceive it, is not limited to the particular period after the completion of the physical property, but is all of the losses which a company would be put to by reason of not at once possessing an income paying plant from the very start to the time when the revenues were fully acquired.

4965 The MASTER: In other words, when completed it would not be a paying proposition and it would not have much going value?

A. A plant can have a going value even if it is not paying, because going value is the value of a creative income. Now if you have an income which is not sufficient to pay your operating expenses, it is nevertheless a fact, that income, whatever it might have been, was created at some cost and expense. Therefore a plant which is losing money may have a going value, or the value of whatever creative income it has.

The MASTER: It wouldn't sell for very much?

A. Oh, no; it wouldn't sell for very much, but any theoretical valuation of the plant having an income almost up to its operating expense is worth more than the plant which has only just a physical finish and has no income at all.

The MASTER: The thing I can't understand is how you can have a going value of a thing you are losing money at.

A. Because going value is the value of created income, whatever it may be. The plant arrives at a period when its physical property is finished and has no income whatever. The moment it gets ten thousand dollars of an income it certainly is worth more to a prospective purchaser than without that income. Notwithstanding that ten thousand dollars income may not pay the operating expenses for the time being, it is presumable that the intending purchaser expects it may grow in time and not only pay operating expenses but fixed charges. But whatever it is, if it has an income it is worth something over and above the fact that there is no income.

The MASTER: It wouldn't sell in the market for its cost?

A. Well that brings in a good many other questions, as to what it would bring on the market.

4966 Q. Now, then, Mr. Alvord, I wish you would tell us what in your judgment is a conservative estimate of the preliminary costs of an enterprise such as this one involved here, this Des Moines gas enterprise?

Objected to as incompetent, not rebuttal and the witness not having been shown to be competent to give an estimate.

A. Any such enterprise as that in a general way requires, I think, all of the preliminary investigation which I have indicated in a general way, necessary to almost any enterprise, differing only in the character of its business. In a general way these preliminary costs, while they vary largely in different cases, do usually bear some fixed ratio to the physical construction which follows them, and with good management and with efficiency they may be kept, to my notion, as low as two and a half per cent on the physical construction which follows. In many cases they will exceed that. To my mind that is the minimum. With peculiar problems of special difficulty, with lack of ability in the technical advice, they may go up to three, four or five per cent of the physical property, even more than that in exceptional cases.

Q. What is a conservative estimate of the administrative costs and legal organization during construction of such an enterprise as this?

Same objection.

A. The administrative costs generally also bear a pretty direct ratio to the physical construction of plants which extend over a great many years. So far as I can discover about two and one half per cent to five per cent is the average figures there, two and a half per cent being the minimum at which proper administration costs to my notion can be had for. In order to have them for that
4967 amount there must be economy practiced and there must be no excessive delays, or litigation, or strikes, or other hazards which may prolong unduly the length of time through which the administration is conducted.

Q. What is a conservative estimate for the engineering during construction, including the supervision you refer to on an enterprise such as this one?

Same objection.

A. The minimum cost there will run hardly less than five per cent. There is some difference in different classes of work about the percentage of engineering. Work which is widely scattered and which has a great deal of detail in its character, will necessitate a higher percentage of engineering than work which is in bulk and done in one place and in which a great deal of money enters for very little planning. But generally speaking five per cent is about as low as the engineering in an important project can be done for. From that it varies in public works and projects which I have examined and listed in some detail, all the way up to twelve and in some cases twenty per cent. I am prepared to say, however, in one or

two instances I have found where it went to four and two-tenth- and four and one-half. But those are very rare.

Q. Have you kept any recent cost of engineering expense incident to pipe laying for water works in Des Moines?

Same objection.

A. I have a number of instances, among which are the engineering of the extensions of the Des Moines Water Company's filtration gallery.

Mr. BYERS: I suggest this is not rebuttal in any sense and is simply opening up this question again.

4968 Q. That is work recently done in this city?

A. Yes, sir.

Q. Involving the excavations and laying of some concrete conduits?

A. Yes, sir.

Q. About what did the engineering amount to on that?

Same objection. Immaterial and not rebuttal and not the best evidence.

A. Seven and two-tenth- per cent.

Q. What is a reasonable estimate upon such a job as this of the contingent costs?

Same objection.

A. The contingent costs on a work of this magnitude ought in my opinion to be not less certainly than five per cent. Seven and a half per cent would seem to me to be a much more conservative estimate, and it would not be at all surprising if it ran to ten per cent. If I were estimating for a company which was about to construct, I should certainly add ten per cent. If I were valuing for the city about to buy and wished to be equally conservative I would certainly not go lower than five per cent.

Q. You gave me an illustration in talking to me yesterday about this of some unexpected contingent costs that could not possibly appear in any inventory, due to some situation in Chicago this present season. I wish you would state what that was.

A. A great many million dollars' worth of buildings have been tied up all summer in Chicago by reason of a strife between the plumbers and the steam heating unions—a jurisdictional strife in which the unions disputed with each other as to whose business it was to put certain pipes in the buildings. The subject did not concern the owners, it did not concern the contractors in any way;

but as I have stated, many millions of dollars' — of buildings
4969 have been tied up from three to five months in the city of Chicago, thereby adding to their underlying charges a great deal of money, making them cost a great deal more than they otherwise would.

Q. It was simply a dispute between the unions and not between them and their employers?

A. Not between them and their employers.

Q. Now I wish you would state, Mr. Alvord, what in your judgment is a fair estimate of the total underlying costs you have referred to on an undertaking such as the construction of a plant like that of the Des Moines Gas Company in the city of Des Moines?

Objected to as incompetent, immaterial, not rebuttal and the proper foundation for the testimony not having been laid and the witness not having been shown to be competent.

A. I think that not less than twenty per cent and from that up to thirty per cent is the range of these underlying charges on work of this magnitude.

Q. And does that assume that the work is economically done and properly handled?

A. The twenty per cent would certainly assume that there were no accidents of any kind, no delays; that there was the very best and most efficient management of payment, the most skilled business forecast, and that in short everything proceeded in a perfectly lovely way, we might say, which is hardly usual.

Cross-examination by Hon. H. W. BYERS:

Q. How long since you were employed by a municipality, Mr. Alvord?

A. Well, I am employed by a great many.

4970 Q. I mean in this class of cases where the question of the rate to be charged by public service utilities was involved?

A. I am now employed by a city in such a case.

Q. Where is that?

A. At Streator, Illinois.

Q. Is that a gas case?

A. No, sir, that is a water case.

Q. When before that?

A. I was employed just a short time ago by the city of Rockford in a water valuation case.

Q. Was that a case between the city and the company as to rates?

A. No, sir; that was a case where the city desired to know the value of the plant and property for the purpose of fixing proper rates themselves.

Q. Is that where the city owned the plant?

A. Yes, sir.

Q. Is that true of Streator?

A. No, Streator was a case where the city desired a water company who owned the plant to adjust their rates.

Q. Was it in a suit in controversy between the water company and the city?

A. Yes, sir.

Q. You appeared as a witness for the city?

A. Yes, sir.

Q. When was the last one just preceding the one you just referred to?

A. Well I don't know that I can remember now without referring to a list.

Q. Give me in a general way the number of cases, as you remember now, where you are representing the company, that you
4971 have on right now, as distinguished from the municipality?

A. Well, I represented the Des Moines Water Company in their recent rate case here, testifying as to the values, and I was engaged to represent the Peoria Water Company, but that case never came to trial; it was settled out of court practically. I am representing the Springfield Consolidated Water Company which controls the water supply of about seventy-three suburbs around Philadelphia, in a case which is about to be tried as to the rates. I could give you a list quicker than I can think of them. My employment has been about equally divided between the cities and the companies. I have valued very close to fifty million dollars' worth of water works property.

At this time, 12 M., an adjournment was taken until 1:30 P. M.

4972

1:30 P. M., TUESDAY, November 14, 1911.

John W. Alvord.

Cross-examination by Hon. H. W. BYERS:

Q. What is the name of your firm?

A. Alvord & Burdick.

Q. And what is their general business.

A. Is hydraulic and sanitary engineering.

Q. I was not attentive at the beginning of your examination, that is your occupation is it?

A. Yes, sir.

Q. How long have you been an engineer?

A. Over thirty years.

Q. How long have you been giving a good portion of your time to the business of valuing property like water plants and gas plants and other similar utilities?

A. Well since the Dubuque case in this state which I think was about 1899, that was the first case I ever was engaged in.

Q. The Dubuque case?

A. Yes, sir.

Q. In 1899.

A. That is my impression, yes.

Q. That was a water case?

A. Yes, sir.

Q. And have you during your experience as an engineer valued gas plants?

A. Yes, sir.

Q. When was the last one you inquired about?

A. Well my experience in valuing gas plants is limited to very small plants a good many years ago, one of them was a coal
4973 gas plant in the Hyde Park District, Chicago.

Q. When was that?

A. Well it must have been about 1884 I judge or 1886, along in there.

Q. Was that a controversy about rates?

A. No, sir; it was prior to one of the consolidations that took place about that time of a number of small plants.

Q. And the valuation at that time was for the promoters of the consolidation.

A. I presume so, I have forgotten now just what it was for.

Q. And when was the other one?

A. The other one was a small plant in Grand Forks, N. Dakota, about all of 20 years ago.

Q. That was a very small concern?

A. Very small plant, yes.

Q. And was that in a rate case?

A. No, I went up there in the interests of some parties who were proposing to take bonds on the plant.

Q. You stated in your examination in chief, if I remember your language correctly that it was only recent years that you had given particular attention and study to this question of overhead charges. Can you tell about when you commenced to give particular attention to that branch of the valuation subject?

A. If I said that I didn't correctly convey my meaning. As I recall it I said I had always given that subject more or less attention and especially in late years in connection with valuation.

Q. Well perhaps I didn't quote you exactly correct.

A. Of late years in connection with valuation is what I am interested in and the general subject prior to that time.

Q. About how long ago was it do you think that you commenced to pay particular attention to the question of overhead charges in valuation cases, cases where the value of property was the subject of inquiry?

A. Well it came to my attention presumably first in connection with the first valuation which I had occasion to make which as I said was at Dubuque.

Q. Was the question of overhead charges prominent in that case?

A. Not particularly.

Q. They commenced to be prominent, however, did they not about the time that we began to have public regulation and control over these utilities, isn't that about right?

A. Well we had always given attention to overhead charges.

Q. In regard to this particular attention, this theory of figuring out any percentages had its origin about the time of the beginning of the public regulation, did it not?

A. No, sir. Engineers had always figured their overhead charges, or underlying charges, as I prefer to call them, in that way. The only emphasis which came about in the matter was when their methods of figuring these underlying charges came to be disputed by parties to appraisals who wanted low valuations.

Q. When do you know or remember the first gas case in which the question of overhead charges was prominent at all?

A. No, I could not say that.

Q. The overhead charges that you dealt with in your examination

in chief, you were dealing principally with the estimated overhead charges were you not?

A. Evidently so, yes.

Q. Do engineers agree about these things?

A. I also said in my testimony that I had looked over a very large number of actual cases in order to substantiate the views
4975 which I have always held and which when we come to go into these rate cases about valuation causes general dispute.

Q. You were not giving us the actual cases at all, you were simply dealing with estimated overhead charges in your examination supporting them as you say by what you have learned from cases that have actually existed?

A. Yes, sir.

Q. Has it been your experience that engineers agree about these charges?

A. They agree pretty well when they are not on opposite sides of appraisal cases.

Q. How is it on opposite sides of a case?

A. They agree fairly well even then although it is fair to say that if there is any tendency to differ that would bring it out. If there is any tendency to differ due to lack of experience on overhead charges valuation cases often bring that out.

Q. You stated this morning that the overhead charges that you were dealing with, that it was your notion that they should be added to the capita- cost. Is that correct?

A. I didn't know that it was my notion. I thought I tried to make it very clear that it was impossible to do anything else with it.

Q. Of course I was not playing on the word notion. Then if these overhead charges are to be added to capital cost it is because they are a part of the cost of the property, the plant or the business, is that right?

A. Yes, sir.

Q. Is there ever any time when overhead charges become a verity a definite sum, definite statement or ascertainable amount?

4976 A. Always after the works are completed, yes.

Q. So if you wanted to know what the Des Moines Gas Company for instance in the last six months have expended on extending its plant, say that the cost of the extensions were in the neighborhood of \$40,000 and you wanted to know what was the exact cost or expenditures of the company in these different overhead or underlying matters that you refer to, where would you go to find out?

A. Primarily to the books of account.

Q. You stated in your examination as I remember it that these charges of course vary, which seemed very natural to me, and as to promotion I think you fixed the minimum of your estimate of what the minimum cost would be at two and a half per cent and from that say to five? Of course that would depend altogether would it not upon what was actually paid for what you call promotion?

A. It certainly would. It is an effort to find out what would naturally and legitimately be necessary to extend for that purpose.

Q. I don't want to put it that way. Take for instance a company that is organized here now, articles already filed and the books opened

and they are promoting an enterprise and have reached a point now where everything is done that is necessary to be done in order to start the business going. The cost to that company or rather the way to measure the charge the overhead or underlying charge that you would call promotion expense as to that enterprise would be to ascertain what they paid wouldn't it?

A. Yes, sir.

Q. You have just said that the cost to the company that I use in my illustration would be ascertained by what they paid.
4977 Now in that connection you have also stated that the amount of these underlying charges and especially take the one for administration, I think you used that term, would depend a good deal on the efficiency of the management and the competency of the managers and so on. Now if you were engineer in charge of an enterprise for an employer and it was your duty to see that the plant was created at as low an expense as possible keeping in mind of course an efficient machine when it was finished, and these underlying expenses were being incurred all the time where would you go to ascertain the question of efficiency in management and how would you determine whether your employers were getting what they were entitled to or not or whether they were paying more than they ought to pay. How would you ascertain that fact?

A. That is a matter of judgment, of business judgment.

Q. You would not depend on your judgment would you in a case of that kind?

A. I certainly should.

Q. How would you know what it was costing the concern?

A. I should have an idea of the matter under observation. Your suggestion is I have that matter under your observation and if I saw people going out and buying material without a sufficient idea of what they were going to do when they bought it or putting a force to work without any detailed plans or clear formulated idea of what they were going to do I should feel that they were very inefficient and that the cost of physical work, as well as the administrative charge for one is dependent on the other, would be very seriously enlarged by such a management as that.

Q. You didn't quite catch the drift of my question or per-
4978 haps I did not state it very clearly. We will assume now you are in charge of the promotion of a gas enterprise. You are the engineer upon whose reports and upon whose judgment the investor is going to depend from the beginning, from the inception of the enterprise to its completion, up to the time it is ready to be operated and you assume that there is a manager an office manager or business manager with the general helpers about the business office. Material must be purchased and labor employed, other engineers, field engineers and all the engineering force that is necessary has to be hired and that is all done by this managing force, not by you, you are simply the man in charge to keep check upon the business and see that it is done not only properly, but without unreasonable and unnecessary charges to expense. Now one of the underlying items that you include in your overhead charges is engineering. Suppose you wanted to check that manager up and determine

whether he was getting that service at a reasonable and proper sum or not, how would you do it? You would not just say that an engineer ought to be worth a thousand dollars a month and let it go at that would you?

A. I should observe whether he was getting and paying for engineering talent that -as consistent with the importance of the responsibilities which he had and that he was getting that engineering talent, after he got it employed giving it proper support time and money for investigation, so that that department could carefully think out in advance everything which necessarily precedes construction and the more detailed I should observe that manager allowed this engineering work to be done, the more confidence I

would have in his judgment and the fact that he was getting
4979 the proper results for his money because it is my theory that every useful thing has to be preceded by a thought, an engineering thought if your mind is put on engineering things and the more time and patience that is spent in these preliminary thoughts the more valuable the results of the engineering and the less the waste and loss when we come to the final construction.

Q. What I am getting at is this, you don't have in your mind any fixed measure for the service of an engineer do you in any particular matter as to what his services are worth per day or per month or per year.

A. I don't know that I understand you.

Q. What I mean is this, if the Des Moines Gas Co., for instance can hire an engineer that is in every way competent and hire him here in Des Moines, a man that is competent for the work on -hich he is to be employed and can get him for \$5.00 a day of \$10 a day that would be the thing for the manager to do wouldn't it, to hire him at that sum notwithstanding it might cost a good deal more to get some other fellow.

A. Well I don't know as I would agree with you on that. He might be a competent \$5 a day man, but that is not the question I conceive would be up to the manager. The manager I should think, if he was going to spend this amount of money would be justified in getting the most competent, not a competent, but the most competent engineer.

Q. Without reference to price?

A. With hardly any reference to price.

Q. Conceding that that is the way business men do as a rule, and getting back to my original question which you have not yet answered, I will put it this way to you. Of course if you are employed to promote this company's property as I suggested
4980 and asked you to assume that position, you would determine yourself probably for the manager who is not an engineer the size of the engineering force would you not?

A. You mean as an observer?

Q. As an engineer in chief, the man who is in charge of this office you would determine?

A. Yes, I should think I ought to determine that, yes.

Q. After you had determined the force, the size of it and number

of engineers that you have employed and then you observed what they were doing, would you want to know anything about what they were being paid?

A. Yes, sir.

Q. How would you find that out?

A. I should loom at the salary roll.

Q. When you had done that you would find exactly what as being paid for that service wouldn't you?

A. Yes, sir.

Q. And when you ascertained that fact you would know then what that part of the cost of that business was going to be wouldn't you?

A. No, I would not because I should have to know some other things.

Q. But I mean as to that particular part of the work?

A. I should have to know that the manager was getting the worth of his money in the talent that he was employing because it might be very easy for him to spend a great deal of money for engineering and get very little talent in which case he would produce tremendous waste all through his physical construction.

Q. To follow off on that side issue a minute, suppose that 4981 is the way the plant is constructed, suppose that is the way this property is created. Would that make any difference at all with the question of value?

A. It certainly would. It would increase the cost of the property to have inefficient engineering.

Q. Leaving out of mind any *any* inefficiency which is not covered by that former question at all, I assumed you selected proper men, men who can do the work and do it right. Now you will ascertain upon an examination of the payroll just what the engineering aside from your own pay is costing that enterprise won't you?

A. I should think so, yes. Providing the accounts are kept properly and that everything is charged in the proper way.

Q. That is true. You don't contend of course that more should be paid for engineering and promotion and these different underlying charges that you have *ferred* to than they are worth, ought not to be extravagant sums paid for that work, ought to be gotten at about what such work could be gotten done for.

A. Well it is not such an easy proposition as you make it appear.

Q. What is not an easy proposition?

A. To get a engineer and pay him just what he is worth and have him the right man in the right place.

Q. Oh well there is some reasonable place where you can state that a man's pay is reasonable isn't there and measures up about with the average?

A. I have a very long list of the actual costs, but I would have to assume that certain proportions of them were either not accurately charged, the engineering was perhaps skimped or perhaps was extravagant, but taking a long line of them I can 4982 form an opinion as you have just suggested as to what engineering ought to be.

Q. You referred this morning to an engineering situation where the item of engineering as it relates to your theory of underlying charges might run way up to a great deal higher than any per cent you mentioned here, 20 or 3- per cent?

A. Yes, sir.

Q. Of course that would be because of some difficulty, either of some soil condition or some condition of the land or the streams or railroads, something of that kind that made it necessary to work out very carefully and after the most careful examination as to all the details—well for instance tunnelling through a hill or rock, something of that kind, all these things would affect the engineering item wouldn't they?

A. Not so materially. The thing which affects it materially is size of the expenditure in relation to the amount of study or preliminary work that has to be done. Now in some very large projects that proportion is different from what it is in some small detailed plan which has nevertheless to be all thought out with as much care as a large plant would have to be. That affects that percentage more than the causes you have just mentioned.

Q. They don't base much on the size of the enterprise before them?

A. Certainly do, yes. Always take into consideration the size and character of the enterprise, that affects the percentage of the engineering.

Q. You mean size in investment or size in character of the plant?

A. Well size in relation to the expenditure.

4983 Q. The money that is going to be put into it?

A. The money that is going to be put into it in comparison with the thought that is going to be put into it.

Q. Do I understand from that that the engineering fees are determined by comparison of the amount of the investment always?

A. Not always, no sir.

Q. Is that ever so in a gas works?

A. Oh yes, it is often so.

Q. In gas enterprises?

A. I a- not so familiar with gas enterprises but it is so in water enterprises.

Q. Take a concrete case here. You said you had just recently had some experience as to the engineering cost if I remember you rightly, it may have been some one of these underlying costs, but I think engineering.

A. Yes, sir.

Q. For the Des Moines Water Co. How did you find out how much was engineering cost of the Des Moines Water Co. just recently?

A. We charged the Des Moines Water Co. our stated rates for our assistant engineers on which all bills are made. At the end of the work took the total amount of such bills and took the total amount of expenditure that they supervised and divided it and got the per cent that showed in that case to be due to engineering.

Q. So what you did in that case your firm was employed to per-

form the service that is necessary to be performed by engineers and when you got through you figured up what your charges were and then ascertained the per cent?

A. Yes, sir.

4984 Q. So that there was no guess about it, was there?

A. No, sir.

Q. No estimate about it?

A. No, sir; I know just what percentage of engineering was in that particular case.

Q. So if anybody wanted to know now, if any question arises in the future as to the engineering expense for that work and the amount that must be added to what you call the capital cost of that construction all that would be necessary in the world to find out will be to go to the Des Moines Water Co.'s books and ascertain what they paid you for that work.

A. Yes, I think that is right.

Q. You refer to contingent costs, if I caught the term correctly?

A. Yes, sir.

Q. Just what do you mean by contingent costs?

A. Well the unforeseen things which the most careful forecaster or estimator is unable to see, which is humanly impossible for him to see. In other words that must be done in the near future.

Q. That at some period becomes a certainty doesn't it?

A. At some period that becomes a certainty, but in the outset it is a hazard.

Q. When does it become a certainty?

A. Becomes a certainty when the work is completed.

Q. Do you know of any contingent cost about the Des Moines Gas plant that has not been covered by their inventory?

A. I have not gone into the details of the cost of the Des Moines Gas plant.

4985 Q. You have no information as to how accurate it was or anything of that kind?

A. Except to look over in the most general kind of a way the testimony and the figures that have been put in and to see what the percentages of cost have been taken on these different items by the different gentlemen who testify.

Q. Take this situation to be true, Mr. Alvord, that a most careful inventory was made of all of the physical property that is involved in this controversy, every item of it down to scrap almost, being set out in the inventory, and this controversy has been going on for three or four months speaking roundly, without their being a suggestion from anybody that any considerable items or in fact any particular items of property were omitted from that inventory would you say in a case like that that there would be anything like contingent costs of five per cent to cover it?

A. Yes, I should. Now one of the biggest items of contingency to such an inventory as that it is a moral certainty that it does not include everything that the Des Moines Gas Co. has. It is a moral certainty that something is omitted; That has always happened in every inventory which I have made that there has been

something omitted. Now as an illustration of that in making an inventory of the Peoria Water Co. we listed the reservoir with its embankments and gate house and it appeared after the estimates were all made that there was no water on top of that hill by which embankments could be puddled or concrete mixed and the contractor at great expense to himself had gone some miles and erected a pumping station and built a pipe line up to the reservoir which was entirely removed when the work was done and entirely forgotten and left out of the inventory but it was an absolutely necessary thing to that reservoir and humanly speaking as a man now who has made quite a number of inventories I am morally certain that no inventory that I ever made, however diligently I may have worked and how anxious I may have been to have made it complete ever really was complete. That is one of the contingencies of an inventory such as you speak. Another contingency along the line which you mention is this that it is humanly impossible to recreate any work in its exact precise form and meet with the same contingencies that the original work met with. There will be a variation just as there is a variation in the nature of the accidents and of the difficulties and the things which interfere which will be different every time you reduplicate it and if you reduplicate it ten times you would have ten times the variation of contingencies to meet.

Q. These variations would be both ways wouldn't they?

A. No they are not generally both ways. There is a possibility sometimes of offset there, but the net result is always to add to your estimated costs, your estimated made by a human being and — human being is not a perfect forecaster.

Q. But you do not want to be understood do you that in reproducing property like that this that has been in operation for nearly thirty years that the variations would all be in an addition to the expense?

A. The things I say that the human forecaster cannot foresee will be in addition to his estimate every time and I may say that that is one of the failings of the engineering professions that they do not sufficiently allow for these things which they cannot humanly foresee and that therefore they are constantly complained of by bankers and by promoters and by monied men that their estimates are not high enough.

Q. Do you say in none of these inventories you have been interested in, there was never too much in it, that the mistake was not in getting too much in?

A. We never get in too much. Never put in anything that is not a fact, not to our knowledge or intentionally.

Q. Oh certainly not intentionally, and you don't leave it out intentionally.

Q. Don't leave it out intentionally, but the net result of trying to list up all of the things which have cost money in a plant of this magnitude is that you never wholly reach the goal of having ever included everything that exists. That something is left out in this inventory I am morally certain.

Q. Where is it if it is not in sight. Everything is in sight except the pipe?

A. I say I am morally certain from my experience that this inventory here is not a full and complete list of everything in this plant.

Q. How long would it take you to check that up?

A. I could not do it.

Q. Why couldn't you?

A. Because I am a human being and I would not reach a full list if I should undertake to do it. I base this answer on experience in making some 20 to 25 inventories of large plants.

Q. You would not miss any buildings?

A. Oh I don't think I would miss a building.

Q. You would not miss any apparatus?

A. A great many things about the plant I don't know about and can't see.

Q. Would you say in this case where there is a lot of old 4988 pipe left in the ground, take for instance two inch, inch and a half and inch and a quarter pipe that has been abandoned for years, should that go into the inventory?

A. It should certainly be put in whatever it is there.

Q. Why should it be put in?

A. Because everything should be put in.

Q. That is the kind of inventories that are made in these rate cases?

A. That is the only honest kind of inventory to make out.

Q. Even though the pipe is abandoned and no longer used?

A. That is for the appraiser to settle whether the pipe is of any value or not. It is not the function of the inventory man to settle that question.

Q. That was done in this case wasn't it?

A. I don't know.

Q. You say you don't know.

A. I don't know anything about it. I never heard of that incident.

Q. And that is done by these public service corporations in inventoring their property?

A. It is the duty of every man making an inventory to make it honestly and put in every piece of physical property or tangible property that he knows belongs to that company. It is not for him to say whether it is worth this or that, that is the appraiser's work, but it is honest business to put it in.

Q. We will admit that is what they did in this case. Now then the engineer or appraiser you call him, he is usually an engineer isn't he?

A. No, sir; the man who makes the inventory is not always the man who—

4989 Q. The appraiser, not the man who makes it, isn't he usually an engineer?

A. The appraiser is usually an engineer, yes.

Q. Always in these cases?

A. Yes, sir.

Q. He comes along then and puts a value on the inventory as it is turned over to him. Take your own case for instance, you take the inventory just as it is furnished to you and there is so much inch and a quarter pipe for instance. You value that at so much a foot or so much a pound and set your valuation and go on to the next item and do the same way don't you?

A. Yes, sir.

Q. So it is your idea that that is the usual way of valuing gas and water plants especially the pipe, that is right is it?

A. If I understand you it is, yes.

Q. That is the usual way of finding the reproduction cost?

A. It is not of finding the value that is finding of the reproduction cost.

Q. And from that they work out what they call their value of the property with the other elements that enter into valuation?

A. Yes, sir.

Q. Now going back to this question of these so called underlying charges. Assume that a new plant—we will assume that you are not advisee about local conditions further than you can observe by a visit or two to the town and here is a local plant that has recently been constructed within two years and it is just beginning to operate and the investor that contemplates taking it over employs you to ascertain for him without going to the trouble of making an inventory of the property, to ascertain for him about 4990 what the plant cost the owners and among other things you wanted to ascertain the cost of these several items of underlying charges, how would you go at that to find that out?

A. Well I should first of all find whether he had kept proper accounts, full and complete accounts. It usually happens that preliminary expenses are missing, the proper accounts, and I should make it my duty first of all to be sure all of the things were in for which money had been expended legitimately. If I was satisfied that the accounts were full and complete from the very initial inception then I take it that these past costs represented one element which would enable me to arrive at value.

Q. You evidently look at this question from a wrong angle. This man simply wants to know from you, wants you to find out for him what these different items cost in that particular case. Now it would make no difference to you about whether the management was efficient or not to ascertain that you would simply go to the books and ascertain what they paid, wouldn't you if you could?

A. If just wanted the cost, he didn't care whether that was the full cost or complete cost, I would do as you say, but I should be certain that he understood that I did not consider that was the full and complete cost or was any means of checking it.

Q. How would you check it, but find out what they had on the books and check it?

A. I should inquire as to all the circumstances, should find as to whether the accounts were complete, whether everything was in that had been paid for.

Q. Is that all you would do?

4991 A. That would be the first thing I would do.

Q. How else would you check it?

A. The next thing I would do would be to find out as much as I — about the initial inception of the enterprise, its promotion and administration and see whether that compared properly with the costs I found on the books.

Q. That is the way you would check that.

A. Yes, sir.

Q. Now for instance if you were trying to find out about legal and organization as some of the engineers call it which you call promotion, if you were checking up that item to see whether about the right sum had been paid you would make some inquiry wouldn't you as to what the cost of the service that enters into that item was in this locality.

A. Well I should try to see that nobody had given services for which they were not remunerated, that would be the first thing I should look at because that is a usual thing, I find that services are often give- that are not represented on the books. That is very common.

Q. Suppose in a local organization, suppose the filing fee for articles of incorporation was \$2,000 and you would find charged on the books for that item \$4,000. Then what would you do or say about that?

A. I should inquire about it certainly.

Q. So that in order to check up the first thing you would want to know is what the several things would cost in the locality where the enterprise was to be promoted?

A. Certainly.

Q. And that would include legal expenses and engineer-
4992 ing and all that class of so called underlying charges?

A. Yes, sir.

Q. And to determine whether the amount claimed was correct you would inform yourself with respect to these things locally and not simply take your estimate wouldn't you?

A. Well if I found that they varied very much from my estimate I should be very suspicious and I should make a very great many side inquiries to find out why they varied from the usual run of things.

Q. It would be absolutely impossible to reach a reliable result without finding out what was actually paid in the community where the enterprise exists?

A. I find it so. I may say I do a great deal of that work for bankers and I find it is very difficult to get a set of accounts that show all of the expenditures that is made in a preliminary way. There are very many reasons for that. That is usually one of the difficulties.

Q. Of course you don't claim do you that these several items cost the same in every locality?

A. Oh no.

Q. They vary some do they not?

A. They certainly do.

Q. Then if the Master wanted to know just what the services that are involved in these several items costs, wanted to get exact information, not somebody's guess or estimate for the last six months, what it was in the operation of this Des Moines gas plant, where would be the best place to get it?

A. Well I think the best place would be to get it from the books if a discriminating person investigated the books and was certain that all charges were there properly made.

4993 Q. You mean if sure they had not manipulated the books?

A. No, I don't mean that, but I mean to say taking your own illustration that it is not likely that even the company themselves would charge against extension expense all of the administrative costs or time that the manager or the clerks or the treasurer gave to that particular work, to carry that out would be carrying out a great deal of detail which companies often do not try to do but are a part of these underlying charges just as certainly—

Q. Now I don't want to argue with you, but take it on your own suggestion, which is aside from an answer to the question, if I understand you correctly it would be impossible to ascertain from the books the cost of these items that you have given an estimate upon here, it would be because the books were so jept that the items were covered up.

A. No, sir; you have misunderstood me. You gave me a specific example of extensions in the last six months and asked me how I would go to work to find from the company's books all these underlying charges on these extensions. Am I right?

Q. Yes.

A. Well I endeavored to make myself clear that there might be many administrative charges properly chargeable to these extensions which the company may not separate from their main administration expense and put them against it?

Q. Couldn't you separate them?

A. I coul- with labor and time certainly. And it is for that reason I said to you a moment ago I would examine the books with care and discrimination.

Q. Now then if you found that they had failed to properly distribute these charges and you found it necessary to add some-
4994 thing to administration you would take it out of operating expense wouldn't you?

A. Certainly. I don't dispute with you a moment.

Q. When we ascertain in that way these charges, these so called underlying charges of this plant we have got, so far as this community is concerned, we have got their exact cost haven't we, no longer a question of guess work or estimate and no longer a question of difference between engineers, we have got the exact figures paid for that work haven't we?

A. I don't see how we have unless we go through and recast the accounts in such a way as we have just been discussing.

Q. When you do that they are.

A. Yes, then if I understand you I answer yes.

Q. If the books of the company here in Des Moines are properly

kept and the proper charges, that is the charges for these so called underlying services, if that is a proper term, are entered in the proper account there is no trouble at all to ascertain just what that kind of work costs in Des Moines is it?

A. As a matter of past cost no sir.

Q. As a matter of past cost, why do you put in that modification?

A. I have been discussing all of this time the theory of reproduction.

Q. Yes, I know you have and I have not been quarreling with you about that.

A. No, but the example which you now cite is a matter of past cost which is not reproduction cost.

Q. It is a matter of past cost in the same sense the work has been done and paid for.

A. Yes, but it is not reproduction cost.

4995 Q. How do you differentiate?

A. The courts have very clearly pointed out—

Q. I am not asking what the courts have done.

A. You asked how I differentiate and I want to answer the question please. The courts have very clearly pointed out there are several ways in which plants may be valued. You may arrive at the past cost of it as one element of determining value or you may consider its reproduction cost as another element entering into its value, or you may consider the market value of its stock and bonds if an adequate market exists as another element which determines value, but neither of these things are value in themselves.

Q. I have not been discussing value, discussing costs.

A. You seemed to me to be confusing past cost with reproduction value.

Q. No I have not. What I am trying to do is simply to find out from you if I can what sort of a check, if any, there is on these so called underlying charges or whether we are just simply compelled to rely upon the guesses and estimates of engineers.

A. Now are you referring to reproduction estimates or past costs?

Q. I am referring to what these things actually cost the enterprise that is now the subject of controversy and not what you might guess they would cost some other time or next year or the year after.

A. As far as you confine yourself to past cost I agree with you that the books properly kept carefully examined and audited are a record of the past cost of the plant.

Q. Then with that statement if we were trying to arrive at the cost of these several underlying items for say January 1911
4996 or at a time just prior to that, within a few weeks of it, would the books show what it cost since, wouldn't you say that was a pretty good way and a pretty good place to anchor on the question of these costs?

A. I would not say it had anything to do with reproduction cost.

Q. Just get out of your mind that reproduction proposition. I am asking now about finding the value of these things the first day of January, 1911, or 31st of December 1910?

A. For what month?

Q. Is it a method of ascertaining exactly what it costs?

A. Past cost. That is the past cost method is it not.

Q. If you were going to get at the reproduction cost—I will indulge on your physical reproduction theory—suppose you were dealing with that and the question was what it would cost to reproduce this plant beginning say on the 1st day of January, 1911, would the cost of material and the cost of labor and the cost of services of engineers and lawyers for the year 1911 have anything to do with your reproduction cost?

A. It would be a guide?

Q. What kind of guide?

A. Just the same guide that all other experience is.

Q. How much of a guide is that?

A. That is the guide that you would use if you were a forecaster endeavoring to see what this plant would cost to reproduce you would use the experience that was available to you.

Q. You would use the cost of labor as one of the elements?

A. I would use the cost of labor which I would expect to obtain in the near future during the period which I had set aside for the reproduction of this plant in a manner which would be humanly possible based on the cost of labor as it was discovered in 1897 the near past.

Q. Take it right now if you were figuring on reproducing this plant and labor right now in Des Moines is say at \$2.50 a day the kind you have to use. Now how much of a figure would that \$2.50 a day cut in your labor cost in your reproduction theory?

A. Naturally be very important.

Q. Controlling wouldn't it, absolutely.

A. No, sir, not absolutely.

Q. Would not disregard it and estimate it next year at \$3.00.

A. No, would not disregard it and would not take it as absolutely controlling.

Q. Why wouldn't you?

A. Because I have got to reproduce in the near future, not in the past.

Q. But you are not dealing in the past now?

A. We are in the present. I am in precisely the position that any engineer is in when he is asked to make an estimate on building a new plant. He must take all of the information which is available to him from the near past and apply it to the probabilities of the near future.

Q. Let's confine ourselves to the labor question and we are dealing with your reproduction theory. You assume that the cost of labor, common labor is \$2.50 a day. It is going to take you to produce your finished plant. Just tell us in as brief a time as you can how far that \$2.50 a day would settle with you the question of the cost of that kind of labor in the construction of that plant in your preliminary estimate?

A. I should take that \$2.50 and I should look over the last 4998 three or four or five years in this town and I should see whether that was declining rate of wages or increasing rate

of wages. If wages had been going up until they reached that sum I would then look ahead and see whether the probabilities of the near future meant that that increase would continue or whether it would become stationary or whether the possibilities were that it might decline? The figure itself would have a controlling influence on my mind in that it would be the central point from which I would reach. But it would not absolutely be correct for me to take it without going — the reasoning that I have just described.

Q. Now would you confine yourself in that method to just labor?

A. No, sir; I would do that——

Q. You would then deal with past cost even in your reproduction theory?

A. I would deal with past costs as throwing light on the near future.

Q. You would not, as an engineer, you would not feel that you had been even fair to yourself if you undertook to make an estimate that did not rest to some extent at least upon past cost would you?

A. Why of course not. Past cost is the very greatest light.

Q. It is the most important element isn't it in the whole problem to determine what is going to be the cost in the future?

A. Past cost of material and labor are but past cost of the plant isn't so entirely.

Q. You don't confine it to material and labor do you?

A. Intangible things or underlying charges themselves, the past cost of the plant is a very different things.

Q. What do you mean when you say past cost of the 4999 plant, do you mean cost paid for the organization end?

A. I mean cost you find on a correct set of accounts of the plant in the past has got to be reasoned out in the same way I have just described. It has had its appreciation and it has had its depreciation, all of which must be taken into account before you can reason correctly if you are going to use it as a yard stick upon which to predicate value.

Q. Would you feel if you were an investor and were about to put your money into an enterprise, a live enterprise and you had engaged an engineer who was not even a resident of the town where the enterprise was in operation, had little if any acquaintance with local conditions, would you be satisfied with an estimate that he would furnish to you as to even the value of that property if it was based entirely upon his judgment as to what it would cost to build it in the future?

A. I think that would be the very best evidence that I could get. If he had followed the series of reasoning which I have just described.

Q. Your answer is inconsistent with the other. I am assuming that this engineer that you have employed as given no attention whatever to past cost either of material or labor or any of these underlying charges, but has simply set down at his table and worked out for you his judgment as to what it would cost to rebuild that

plant in the future beginning at the present and building it through a year or two in the future.

A. I should say that he had neglected one source of information which I should consider was important, but if he was an experienced engineer I should still think that his estimate had a good deal of value.

Q. Oh it would have some value, but an experienced engineer that has no information about local conditions don't even know anything about local markets is he competent in that condition to furnish you an estimate as to the cost of a piece of property that you would be willing to take?

A. Yes, he is because local conditions do not have the weight that you seem to think they do.

Q. Well does it have any weight?

A. They vary slightly in this or in that, but the net sum and net result of a great amount of estimated work smoothes out these differences so that they have very little weight with the final result.

Q. Suppose a town is situated on two sides of a large stream of water with hard stone bottom, some sides and all that sort of thing, your engineer ought to know about that hadn't he if your pipes had to be put across the river and all that sort of thing?

A. You are quite right there.

Q. Isn't that a local condition?

A. Hardly such a local condition as I thought you had in mind.

Q. What did you think I had in mind?

A. I thought you had local variations in prices of material and labor.

Q. Material I suppose would not be so very much although there would be some on that. But I had in mind all local conditions that must enter into any sort of intelligent estimate of the cost of building an enterprise like a gas plant.

A. It is fair to you to say that it would certainly be very important for him to determine whether the town was founded on rock or sand, you are quite right there.

COURT: You spoke of promotion, what did you put the minimum on that?

A. Two and a half per cent.

COURT: And the maximum?

A. Five per cent.

COURT: And organization?

A. My promotion means the organization up to the time when the actual work on the ground can commence.

COURT: That includes organization?

A. That is included in what I call promotion.

COURT: And engineering?

A. Engineering the minimum five per cent, the maximum seven and a half per cent.

COURT: In the engineering expense you include the work of the engineer in superintending the construction and seeing that it is done right, is that correct?

A. This is supervision, inspectors, even clerks in the engineer-

ing department, the issuing of estimates, control of the contractor, giving him his final certificate and the direction of the work up to the time it is completed.

COURT: That is the entire supervision?

A. Entire supervision as well as details and specifications.

COURT: What do you have for casualties?

A. For casualties, if you mean by that what is called incidental expenses from five per cent as a minimum to ten per cent as a maximum.

COURT: That then would include the contingent and incidental expense.

COURT: Some of the engineers here gave casualties such as these things that result in injuries to persons or loss by reason of that.

A. This I include under the head of taxes, insurance, etc., 5002 which I put at two and one half per cent.

COURT: Contingencies and incidentals?

A. From five to 10 per cent.

COURT: Taxes?

A. Taxes, insurance and casualties, a minimum of two per cent perhaps to two and a half per cent on a work of this magnitude. For taxes, insurance and casualties and matter- of that kind. The administration during progress of the work aside from the engineering two and one half per cent.

COURT: Interest during construction?

A. Interest during construction figured at six per cent on the amounts of money invested from time to time on structures not yet earning. Therefore it is something different from a rate. That has to come on the thing before you can begin to figure what your return will be as to going value. That is the one paradox which perplexes almost anybody that comes to going value for the first time.

COURT: Six per cent on the amount actually invested before you got started.

Mr. BYERS: I don't care to go into the question of going value with you further than a question or two. When did you first work out a definite theory upon going value, when do you remember it about the first?

A. The Dubuque case.

Q. That was in the Dubuque case about twenty years ago?

A. No, thirteen years ago.

Q. Now have you followed the same theory up to this time?

A. Yes, with minor changes suggested by experience from time to time.

Q. Was the Dubuque case a rate case?

5003 a. No it was a purchase case.

Q. Were you valuing the property for the seller or buyer.

A. For the seller.

Q. Do you know Mr. Humphreys, Dr. Humphreys?

A. No, sir. Well I have corresponded with him but I have not met him personally.

Q. Did you ever do any work for him?

A. No, sir.

Q. When did you have your last correspondence with him, do you remember?

A. He wrote me a letter here a short time ago asking some questions about a paper which I wrote on going value for the American society of Engineers published along in the spring.

Q. And you sent it to him?

A. I replied to it at the time.

Q. Is that all the correspondence you have had?

A. Yes, sir.

Q. Did he tell you what his notion of going value was?

A. No, he did not.

Q. Sure about that are you?

A. Yes, sir.

Q. I have a certified copy of Mr. Humphreys' testimony in a recent case on the question of going value and I want to read you what he says about it and get your notion as to whether that is your theory?

Objected to as not cross examination.

Q. "Now what have you to say as to the amount which should properly be inserted in this statement for going value of the plant.

A. Can I answer that in my own way? Q. Certainly. A. Well I start off by saying that it is absolutely a matter of judgment.

5004 I do not believe that any rule can be developed for it that can be mathematically applied and that no matter what guidance we may get by certain lines of reasoning I think that finally they all lead into a matter of developed judgment and many of the so called rules or lines of procedure are simply reasoning in a circle because if we say it depends upon the question of income and the question of income depends upon the rate and that is what we are here for so we have got to get into the circle and can't get out. Of course there are lots of thoughts that are helpful as to what was the cost to get and hold a consumer. Then cost is not necessarily value. The value of every consumer attached would depend upon the character of his connection with the company, whether it was for a large amount or small amount of consumption and also it would depend how we secured that and help him after we have gotten him. In many cases the cost of getting a consumer is exceeded by its value. I am afraid in this particular case of ours that the cost is in excess of the value. I don't believe it is necessary to go into a talk as to the different ways of arriving, of course one of the processes that we have followed and followed with a good deal of satisfaction as far as our own estimates are concerned was that of saying each consumer was worth for going value say \$20 or right up about \$30 some range in there. In the old days where we were not subjected to government control of course the way that we applied it then was to capitalize our earnings and the amount in excess of the physical value of the plant if it was determined, it usually was not in those says, would be the going value as appraised

by the appraiser, that is what he was willing to pay for it." Is that your notion of going value in any sense?

5005 A. No, sir. May I ask the date of that?

Q. The certificate is "Office of the Public Service Commission State of New York, Second District. I have compared the preceding with the original transcript of stenographer's minutes of hearing held at No. 216 Chamber of Commerce Building, Buffalo, New York, June 6, 1911, in the matter of the Complaint of the Buffalo Gas Company against the City of Buffalo of testimony shown on page 1069 beginning with line 19 pages 1070 and 1071."

A. Perhaps my modesty is leading me to do an injustice as to my own theory. Mr. Humphrey's letter has been written since that date and in it he expresses his satisfaction with the way in which I solve the problem of going value. Then he asked me some questions as to how, evidently that he might understand a little further.

Q. He is a gas man, in the gas business.

A. I understand he is yes.

Q. It was after this testimony that was given because of the controversy down there he wrote you.

A. My paper was published since that date.

Q. Your notion without going into it extensively, your notion about going value is that the going value is measured to some extent at least, maybe entirely by created income.

A. My notion is that the going value is the value of the income and if you are approaching the value through the medium of reproduction then you will compute your going value upon the theory you must reproduce the income as well as the physical property in order to be consistent and complete the yard stick for your

5006 use.

Q. Then do you measure the going value by the income from the beginning of the receipt of the income at all, that is every dollar of income represents some going value does it in your notion?

A. No, sir; I measure it from the point of view of the investor who is, we might say, standing at the parting of the ways. He may buy the plant before him at its fixed price or he may build and create an income. He reasons that the value of the plant before him is what it will cost him to build and create an equal income. He therefore takes all the necessary steps on both of these paths, compares them and finds the difference between a physical plant and the plant with an income and credits that to the plant with an income as to the cost of reproducing that income.

Q. Here is a plan- that the cost of the physical property to the company was \$1,500,000, no dispute about that. That was the actual cost, the money actually put into the property and none of it taken out.

A. That is past cost.

Q. Yes, that much money actually expended in the property. Now the property has been in operation for several years and it is bringing in an income of \$10,000 not a cent more, that is the net

income I mean of \$10,000. Now if you had a customer, a man that was an investor and was relying on your judgment in the purchase of the plant how much would you add to the cost price which was a million five hundred thousand dollars, how much would you add for going value?

A. Well I could not undertake to go through the computation now.

Q. Would you add anything?

A. I certainly should compare as I stated before—

Q. There is a loss of money?

5007 A. That doesn't make any difference. As I have stated to the Master this morning that don't make a particle of difference. If that plant is there it has got to go. You won't get anybody to take that plant unless it is worth running.

Q. Then it would be valueless to any investor?

A. That might be, but would not be so valueless as it would be if it did not produce that \$10,000, if it is producing that \$10,000 revenue it makes it less valueless than it would be otherwise.

Q. If it only produced \$5,000 it would be worth \$5,000 less? What I would like to have you do under your scientific theory of going value, have you tell the Master if you can and that seems to be a pretty simple proposition, you have got a gas property of \$1,500,000 giving a net income of \$10,000 and you say the going value is an income proposition. Now how much would you add in value, I mean your so called going value?

A. Going value is a great deal more than an income proposition. It is an income proposition for one main consideration and it is a great deal more.

Q. If it is more what are the other things?

A. The other things are the difficulties in the way of the proposed consumers in obtaining whatever this plant turns out whether it be water or gas. If the consumers in this town have absolutely no other source of supply and they must come to this company for the staple it produces then obviously it would not take that company much time to reproduce that income, people would come flocking back to the company.

Q. You are getting away from the proposition.

A. I am illustrating to you going value depends on more things than revenue. It is facility I am talking about, facility is 5008 the next largest item in going value to revenue.

Q. I am asking you to assume the situation that covers everything you are talking about. Assume a plant was in operation and been in operation in a community for several years?

A. Necessary to the community?

Q. Yes, to that extent.

A. Must be run?

Q. I won't say must be run, that does not follow in any case.

A. Oh yes it does a water works company may be losing money, but somebody has got to run it just the same. I will take you at your word; we will assume a water works company in a town like Des Moines costing a million and a half—

Q. You are engaged in the water works company, take some other company.

A. I prefer this company because familiar to me, I illustrate it better. It has cost a million and a half and got to be run in this community because this community has got to have fire protection and water. It is producing an income of \$10,000 and no more. Now what is there to that company in the way of going value. Certainly it is worth more producing that 10,000 if it has got to be run than if it did not produce that \$10,000.

Q. Anybody would admit that.

A. You did not seem to admit it awhile ago.

Q. I never questioned it. But I am asking you to state to the Master because you introduced yourself here as an expert on these questions and I am asking you to state, for our benefit if you will, and I want to be entirely courteous about it, in this case if you want the water company for an illustration say that the water company, the actual cost of the property is a million and a half dollars, no dispute about that and been operated here for years bringing in a net income of \$10,000. Now how much would you add to the physical value of that property for going value in that case?

A. I would add what it would cost to re-create the company and produce that \$10,000 of income.

Q. Re-create what company?

A. The water plant.

Q. How much would you say that is, what I want there is to get an estimate?

A. You have given the amount of income. I could not tell that off hand because it is a matter of some study and depends on more factors than you have enumerated. Depends on the facility with which people can get another supply, if there are wells here in Des Moines all over the outskirts they don't have to come to this company for water and it might take them quite a long time to build up that income. If the contrary is the case the reverse will be true. It is simply a proposition of arithmetic.

Q. The demand is already here, you know the situation, you know the town, you know your water company you have already had experience with it. Now I started by asking you if you were employed as an engineer by an investor who was going to put his money into this business, into this water company here which cost \$1,500,000 and it was only producing an income of \$10,000, how much in that case going into the field generally how much in that case would you add to the physical value of the property as going value?

A. I would advise him to add just what he could see it would cost him—

5010 Q. Would you advise him to buy the property at all?

A. I should advise him to add to the cost of the physical property what it would cost him in losses to re-create that property and its income. Now I can't tell you offhand as a plain sum of two and two is four what that is.

Q. If I understand you now you would advise that investor to add

to the value of that property for the purpose of buying it what he might lose in the future by running it is that your idea?

A. No, I don't know what that step would mean.

Q. Isn't that just what you said, didn't you get into rather an inco-sistent position?

A. I don't think I understand you.

COURT: That is on the theory the more it goes the less you are worth under those circumstances. Of course if a man made a contract by which he has got to put this thing in and run it whether he loses or not, that is another proposition altogether?

A. That introduces an element of general market value which is hardly what we are considering in this question of cost of these public utilities because we do not start here subject to the rules of ordinary market value, you know that as well as I do. There is one purchaser for a public utility which approaches the subject different from an ordinary market investor and that is the city. If the city must purchase and providing the plant is running at a loss and it purchases it it should be willing to pay more for a plant that is running for a less loss than it would for a plant that is running at a greater loss. That is the principle.

Q. That would seem to be reasonable, but you are getting away from this proposition. You have a client in Chicago that has
5011 a notion of investing his money in a water plant. He employs you to come out here to Des Moines, he has heard about the Des Moines plant, to come out here to Des Moines and look this plant over and come back and advise him with respect to its purchase and he wants you to ascertain from him every fact that is important in connection with the enterprise and among other things the income, its going value and all that sort of thing and you find just the situation I have asked you two or three times to assume, a water plant worth a million five hundred thousand dollars that has been in operation here in the city where they use water and know how to use it for years, but was only earning a net income of \$10,000. When you went back to report on that situation, how much would you advise him should be added to the cost of the plant for going value.

A. I have not gone through the computation, but if he was determined to buy I should advise him, he must have some reason for buying and I should advise him if the plant was losing money in the first place not to buy it. That is certainly obvious.

Q. Your going value would be absolutely worthless wouldn't it in a proposition of that kind?

A. Yes, and your physical value would be equally worthless as an investment to an outside investor looking for return on his money.

Q. What point then in the return or income on the property do you have to reach before there is any actual value in this thing you call going value?

A. The thing itself on the general market if it does not have to be run has no value until it produces a return which pays all
5012 fixed charges and operating expenses. That certainly is clear.

COURT: I think I understand the witness and I am going to state it and see if I do or not. Here is a city that is bound to have

water. It goes to work and builds water works and uses them and produces a revenue. That revenue is not sufficient to pay the expenses of operation yet they must have it, it is their works, they are getting water and the city as such and the public as such have to have it. Of course it is worth more when it is in operation and discharging and performing its duty and supplying the city by reason of that than it would be if it were just lying there naked and not in operation. I understand that proposition, but for a market value to sell on the market with the same kind of revenue I don't think you would find a purchaser anywhere?

A. That is exactly my point of view your honor.

Redirect examination by N. T. GUERNSEY, Esq.:

Q. To avoid any misunderstanding with reference to the questions that were asked you about inventorying abandoned pipe and property that is not in use and as to the custom of public utilities in rate cases, do you mean to be understood that it would be the custom to take that property at the same price or at the same value as if it were in use or had not been abandoned or that you would not take that fact into account?

A. I certainly would take that fact into account. I was speaking wholly from the point of view of the man who makes the inventory I do not think he has any right to omit property, however valueless it may seem to him. He may be a different person from the
5013 appraiser, but it — his duty to list up all property and the appraiser may mark it all off if he sees fit or any portion of it, exercising his function as a valuer.

Recross-examination by Hon. H. W. BYERS:

Q. If you should find an inventory in a gas case where the company had been in operation for thirty years or more, nearer forty and you found listed a very large amount of small sized pipe would you put a value on that pipe as an engineer and appraiser without making some inquiry about it as to whether it was abandoned pipe or whether it was still in use or whether it was buried up where no one could ever get it or as to whether it was inadequate and all that?

A. I should certainly inquire as to all of those things.

Q. You would not just go out and fix the regular market price the price it is being sold on the market today upon all pipe and then add to it all these overhead charges and even more than the amount suggested without making very careful inquiry would you?

A. If I did do that I should make such inquiry as would convince me what its useful future life might be and I would depreciate it in exact accordance with these facts.

Q. You would not just put the same price or same value on the pipe that was abandoned and was no longer being used at all, left in the ground just as it was abandoned would you with all the other pipes and then finally wind up with a certain per cent of depreciation on the whole business?

A. I should certainly take all these facts into consideration and

at the same time I might say that I have marked off such
5014 pipe as that at a hundred per cent depreciation in Dubuque
which they are still using today so that we sometimes missed
out on the question of whether it is abandoned or not.

Q. Well take this kind of a case, take a case where there was say
1500 feet of four inch pipe that had been used for main for years,
twenty or twenty five years and then they substituted for that an
eight inch main, the service required an eight inch main and they
out in an eight inch main, just abandoned the other and left it in
the ground, cut off the connection and it is buried there in the
ground and left there would you value that at anything if you found
it in the inventory?

A. I don't know that I should wipe that off fully.

Q. Why in a rate case.

A. Because there is always a possibility such property as that
will still have value, I might depreciate it very heavily, very heavily
indeed, but I am not sure that I should wipe it out.

Q. Well what kind of pipe do you wipe out, you say you depreci-
ated 100 per cent in Dubuque, what kind of pipe was that?

A. That was a system of drive wells by which at one time they
had hoped to obtain a supply of water from the gravels near the
river and at the time of our appraisal it was abandoned and every-
body had agreed it was a foolish thing to put in any way and I
think three or four pretty good engineers besides myself followed
the general thought and depreciated that property 100 per cent.

Q. You thought that was proper didn't you?

A. I thought so at the time, but a few years later they went
down there and they found the man who had connected that up
tapped the pipe up in the top of the pipe so it was all air
5015 bound and by making the proper connections they drew a
large amount of water from these pipes and been drawing it
ever since so I was mistaken.

Q. Well the point was it had some value since, although at that
time it had no value, bearing no part of the production of that
system.

A. Yes, but it would have been the part of wisdom not to have
depreciated it entirely.

Witness Excused.

Complainant offers and reads in evidence Complainant's Exhibit
No. 92.

5016 JANSEN HAINES being recalled on the part of the defend-
ant and examined in chief by Hon. H. W. Byers, testified as
follows:

Q. Do you have a voucher showing the payment of certain ex-
penses under date of April 11th, covering the items taking of testi-
mony on February 22, 23, 24, 25, 26, 27 and March 1st?

A. What is the amount of the voucher?

Q. \$222.15?

A. I have, yes.

Q. I wish you would produce it and let the reporter mark it an exhibit. The voucher you handed me Mr. Haines which is approved by Mr. G. I. Vinvent and W. B. Keffler, states on its face as follows: "To services taking testimony of witnesses on February 22, 23, 24, 25, 26 and 27 and March 1st, seven days \$56.00." What testimony was taken on those days?

A. That was for reporting the examination of the witnesses.

Q. Who examined them?

A. The attorneys for the gas company.

Q. What attorneys were they?

A. Messrs. Carr and Read and Guernsey.

Q. And where was it taken, where was the testimony taken?

A. It was taken either in their offices or in the offices that we have in the Securities Building up stairs.

Q. I notice among other things here "To transcript Mr. Lea's testimony, 106 pages, two carbons \$42.40." Have you got that transcript?

A. I think the attorneys have it.

Q. And was that testimony taken on the days mentioned here?

A. I presume so, if the bill says so. I really don't recall accurately on what dates it was done, but I presume the dates are correctly stated there.

Q. Mr. Lea and Mr. Bair and Mr. Hagenah were all here at the same time and their testimony taken at the same time here?

A. I don't recall whether they were all here or not at the same time. The recollection that I have is that the attorneys desired to prepare, the usual preparation of any case and that for their convenience and to save time they desired to have it taken in the form of transcript so that they could prepare themselves and properly study the case from the standpoint they desired and therefore they had the stenographer simply employed as that bill states.

Q. And they were examined by the attorneys in the regular way just as though they were on the witness stand?

A. They were not examined under oath as I understand it.

Q. Mr. Maul I see here fifty four pages, what was he testifying to?

A. Well I presume it was in the same line. I could not answer exactly what he was testifying to. He was questioned just the same as any witness would be questioned in the preparation of a case.

Q. He was the foreman, the man that is in charge of the distribution system that testified here?

A. He is our street main foreman, yes.

Q. That had an excellent memory?

A. Yes, sir.

Q. Do you know where this transcript of his testimony is?

A. I do not General. I don't think I have seen it since that time.

Q. Mr. Blair, seventy three pages. He was examined in the same way by questions and answers and his answers taken down and then transcribed?

A. Yes, at the attorneys' suggestion, that was their request.

Q. And Mr. Hagenah, I notice 62 pages of his examination. Mr.

Hagenah is the man who testified here with respect to an examination that he made of your books is he?

A. Yes, sir.

Q. Had he made any examination at the time he gave these 62 pages of testimony?

A. I really can't recall General. I would have to compare the dates.

Q. Do you have any recollection of what he talked about in these 62 pages?

A. I don't remember whether I was present at the time or not. The attorneys conducted it.

Q. If you have these transcripts, Mr. Lea's, 106 pages, Mr. Bair 73 pages, Mr. Hagenah 62 and Mr. Moul, 54, I wish you would produce them for us.

A. I will be glad to do whatever my attorneys say in reagr to that.

Q. You preserved that I suppose, did you not?

A. I really don't know what has become of it General, I don't think I have seen it since that time.

Q. What were these carbons for?

A. I think they were probably carbons which were made up for each attorney. There were one original and two carbons in that bill?

Q. Two carbons yes.

A. That would presume one original and two carbons, I presume made up one for each attorney.

5019 Q. When did you see the transcript last?

A. I think when it was delivered.

Q. Just why wasn't this item put on the books, Mr. Haines?

A. Put on the books when?

Q. Any time; is it on the books now?

A. Let me see the voucher just a moment and I will tell you. This bill was paid off by check No. 7743 under date May 18, 1911, on the Iowa National Bank, therefore would appear on our books on the May account.

Q. Do you know what way it was put on the books if it is on at all?

A. Well this voucher was entered on our accounts payable and distributed from that to the accounts shown in our classification column under rate regulation expense.

Q. Do you know yourself just how it appears on the books?

A. Well I have not seen this particular item on the books, because I have not paid attention to it, but I recognize from the check marks and the notations on the voucher that it has been regularly entered.

Court: It is on the book account?

A. Yes, on the book account and has all the marks regular vouchers have after they have been entered so it has been entered on our books.

Q. Is there anything about it to show when it was entered on the books?

A. Well the payment of the check would enter it on the check book that is shown to have been made on May 18, 1911.

Q. I am speaking about your general books, not your check books.

A. That would go into the May accounts and would be entered on our books some time between the 1st and 15th of June.

5020 Q. Do you know who else was present at the time these men were examined that week in February and the 1st day of March?

A. No. I was present myself at some of those examinations but not I think at all of them. I am not absolutely sure in regard to that. I know I was present at some, but I should not like to say I was present at all.

Mr. BYERS: We would like to have you produce for us in the morning the transcript of these witness' testimony.

Q. I asked you, you remember, the last day of the hearing to produce certain evidence from your books with respect to the cost of extensions here. Have you worked that out for us? In regard to the overhead charges and other items going into the betterment and improvements and extensions the company has made here in Des Moines one question was as I remember it during the last year.

A. No, sir; I have not.

Q. Have you made any effort to get that information?

A. I made some effort to, yes.

Q. How much.

A. I don't remember the amount of effort I made.

Mr. BYERS: That is all with the exception we want those transcripts.

Mr. BYERS: Defendant at this time offers and reads into the record the following exhibit No. 82, produced by the witness, Haines: Des Moines, Iowa, April 1, 1911. Des Moines Gas Company City in account with Balise & Blaise, General Stenographers, 802 Fleming Building. Then the numbers within a circle on the face of the voucher 478 11-23 154 O. K. J. H. 4-21-11 D. To services taking testimony of witnesses on February 22, 23, 24, 25, 5021 26, 27, March 1, seven days, \$56.00. To transcript Mr. Lea's testimony, 106 pp, two carbons, \$42.40. To trans- Mr. Brodnax' testimony, 86 pp, two carbons, \$38.70. Mr. Bair, 73 pp, two carbons, \$32.85. Mr. Hagenah, 62 pp, two carbons, \$27.90. Mr. Maul, 54 pp, two carbons, \$24.30. Total, \$222.15. In red stamp, rate litigation exp. and then in typewritten form. Received payment.

Attached to the bill just read we offer Exhibit No. 83 Des Moines Gas Company, Des Moines, Iowa, to Blaise & Blaise City, Order No. 5602, date 1911, April 1, to services taking testimony witnesses on February 22, 23, 24, 25, 26 and 27 and March 1, total seven days, \$56. Transcript Mr. Lea's testimony, 106 pp, two carbons, \$42.40. Transcript Mr. Brodnax' testimony, 86 pp, two carbons, \$38.70. To transcript Mr. Bair, 73 pp, two carbons, \$32.85. Transcript Mr. Hagenah, 62 pp, two carbons, \$27.90. Transcript Mr. Maul, 54 pp, two carbons, \$24.30. Total, \$222.15. Rate regulation ex. Stamped on the face of the paper paid by check No. 7743, May 18,

1911, on Iowa National Bank and signed following the word correct by G. I. Vincent and W. B. Keffer, and then there are some initials in red ink that looks like A S C and the other W M N. Received May 23, 1911, from Des Moines Gas Company, \$222.15 in full for above bill. Blaise & Blaise, per J. P. Blaise. The paper I have just read and which I offer in evidence now as read was defendant's Exhibit No. 83.

Witness excused.

5022 W. F. DOUTHIRT being recalled on the part of the defendant and examined in chief by Hon. H. W. Byers, testified as follows:

Q. Just before the adjournment some weeks ago you were asked to produce certain books and records of the United Gas Improvement Company and you stated that you would take time to determine whether you would produce them or not. Have you decided to produce them?

A. So far as they are in existence, yes.

Q. Have you them here now?

A. Yes, sir.

Q. I wish you would produce them as far as you have them here?

(Witness produces documents.)

Here the further hearing was continued until 9:30 A. M. tomorrow.

5023

Wednesday Forenoon Session.

NOVEMBER 15, 1911—at 9:30 a. m.

JUDGE CARR: Before proceeding with the further testimony in this case, I desire to call the attention of the Master to the request made by General Byers last night when Mr. Haines was on the witness' stand, with respect to certain testimony which he desired to have Mr. Haines produce. Mr. Haines was interrogated about this testimony, and it appears from his testimony that the attorneys had requested this arrangement themselves, to have it taken down in shorthand and transcribed for their use. It was a simple way of making a memoranda of what the witness would testify to; something that would be convenient for us to refer to whenever we had occasion to do so. Mr. Byers has asked Mr. Haines to produce that transcript, and I desire to say now for myself and my associates, that we will not produce the transcript and that we have advised Mr. Haines not to produce the transcript. We regard it as a matter wholly immaterial, and something which counsel ought not to call for and ought not to ask for. Counsel would be in the same position if we should ask General Byers to take the witness' stand and then interrogate him at length as to the interviews he had with his witnesses, which is a matter entirely immaterial in every sense, and the only way we can meet a demand of that kind, which from our point of view is a mere impertinence, is to simply decline to produce it.

Mr. BYERS: I suppose it is proper for me to make some sort of a response to that sort of a suggestion. I want to begin with what little I have to say upon this question, with the statement that so far as I am individually concerned, and I think I can say 5024 that for all of the counsel on this side of the table, there has been very little in all of these three months of struggle over this case that could be criticised or objected to by us, so far as our treatment is concerned, by counsel on the other side. It has been a long and very carefully tried question, I think. I am under the greatest obligation to the Master and to counsel and to the witnesses on the other side, for their courtesy and kind treatment, and I appreciate it. But I want to say this to your honor and counsel, that I have been actuated by just one single purpose in this entire trial, and that purpose was to get before this Master every fact and every item of information that would be helpful in finally arriving at a correct and intelligent judgment upon these vital questions that must finally be settled in order to get at the final judgment.

This statement of Judge Carr contains what seems to me to be an unnecessary and unjust reflection upon counsel. I think I am safe in saying that the situation that was developed by the testimony of Mr. Haines is at least unusual. I have never said that it was improper, and I do not say so now, but I do say this to counsel, that this court and counsel on this side of the table are entitled to know just exactly what information these witnesses gave at that time, and why. Why is it legitimate? Because the only doubtful question in my mind in this whole proceeding, rather than the one question that will be the most difficult of final solution is the question of the value of this property. Here are certain witnesses introduced by the complainant, and I think I am within the rules of propriety when I say that it is the duty of counsel on the other side and the duty of the complainant too, to furnish to this Master, even without 5025 any request from this side, every single fact or information bearing either upon the question of value or upon the competency and qualification of these several witnesses. It appears in this record that in March, weeks before—I think even before your honor was appointed as Master—at any rate long before any hearing was had, that three of the most important witnesses that have been called to testify on complainant's side were here and were examined to the extent of from 50 to 75 pages of typewritten matter upon these questions of valuations and added values that they testified to later. Now, of course, it is a part of the legitimate conduct of this side of this case to ascertain for the Master and put before the Master every fact or information that will bear upon the credibility of the witnesses, their qualification, and the weight that should be given to what testimony they have offered here in court. This testimony that was taken, the president of this company says, was taken for the purpose of getting ready for this case. What they said then might have a great deal to do with finally determining how much weight their testimony given here ought to have.

I want to say to counsel again, I think I know what a lawsuit is;

I think I know about how far a lawyer ought to go in the trial of a lawsuit, and I want to say to counsel now that in all of these things that I have asked their client for, I have wanted only to convince myself and satisfy myself that I was going to the limit of my duty as counsel in this controversy and I did not want to go one inch beyond that, and I did not want to stop one inch short of that, because this is a tremendously important lawsuit; it is tremendously important to the city of Des Moines; it is important to the Master;

it is important to counsel on both sides, and when we get
5026 through with this fight, as long and as desperate as it has been, and as expensive as it has been, it is important when we get through with it that no one may be able to feel or say that anything that was proper or legitimate has been neglected, and that any fact or information within the reach of the Master has not been called in and used in arriving at the final judgment.

So I say again, the only part of the statement I resent, and I do resent that, is the part that reflects upon counsel and the ugly word used, it is a mere "impertinence." I do not think counsel ought to do that, but I waive it with what I have to say, and let it go at that.

Judge CARR: Just a word. It seems to me my good friend General Byers indulges in very specious reasoning. Of course it is important to get at the facts in this case, and for us to bring forward and respond to any call for any facts in this case. I submit to your honor, that from the beginning to the end of this long litigation we have met every demand made upon us, many of them, it has seemed to us, going clear beyond the limit of what is reasonable. We have, whenever information was called for of any kind or character that could have any possible bearing upon the issues in this case, furnished it and furnished it at a great deal of trouble and expense to ourselves. We have not only turned over our records to them for investigation, but when they said they could not get things we have furnished them every such item of information that would have any bearing upon this case. I do not think any case was ever tried where a party has stood in the attitude of at all times doing everything it could do to bring forward the facts in the case as has
been done in this case, whether General Byers appreciates

5027 it or not—he ought to appreciate it. But what has that got to do with this question? Here were witnesses that were being interrogated as to their knowledge of the facts of this case, to enable counsel to properly examine them when put upon the witness stand. I have no doubt that counsel for the city has spent many hours and many days in interviewing the city's witnesses. I know when General Byers was examining some of his witnesses he had the most voluminous notes before him. General Byers seems to think the word "impertinence" was a word uncalled for. I would have called it a great impertinence to have demanded from him his notes. I would have thought it was the greatest impertinence a lawyer could be guilty of to try to secure from him his notes made up for the examination of his witnesses. Instead of sitting and making long, copious notes in longhand, we had a stenographer that

took them down in shorthand. It was simply a matter of convenience making up the notes of the statements of the witnesses.

General Byers says, if they could show they made statements at that time contradictory to those made on the stand, it would be material. But there is no showing or claim that these witnesses made any contradictory statements whatever to us different than they did upon the witness' stand. What we resent is for General Byers saying that we ought to furnish him for his inspection the notes of the testimony of our witnesses as taken down for our own information. I say again, I see no difference between that and our coming in here and putting General Byers on the witness' stand, or Professor Bemis, or Professor Marks, and say to them, didn't Mr. Byers or Mr. Brennan make copious notes of your statements; have you got them, and will you produce them, and then turn to counsel and insist for their production for our inspection. Counsel might say, you can have them. But it is an unusual and unheard of thing. There is no reason for counsel to indulge in such a demand. Therefore I feel we are entirely within our rights when I say, we will not turn this over.

Mr. BYERS: I made use of one expression that may be misleading, at the close of my remarks, where I said that we waived—I did not mean that we waived the demand at all. I say it is entirely proper—if a witness was on the witness stand now, it would be perfectly proper and right for us to ask if he hadn't stated a certain theory with respect to a matter he is now testifying about at a prior time. I do not know what these 75 pages of Mr. Baehr's testimony was. There is no way for me to find out. It ought to be here before this court so that the court can tell, and we insist upon its being presented. If they refuse to bring it in—that is all right.

The MASTER: In my judgment a memorandum taken, whether in shorthand and afterwards transcribed, or in any other way, by counsel in the preparation of the case, counsel is not under any obligation to produce it to the court or turn it over to counsel. While it is proper or right to show in cross examining a witness with respect to interviews and talks as bearing upon the credibility of the witness, the fact that they were there and a long interview was had with them and many questions were asked, is proper to be considered, but I do not believe that the memorandum taken—it does not make any difference in what form—counsel for complainant, or counsel

5029 in the trial of a case are under obligations to produce to counsel on the other side. That is my judgment about it.

Mr. BYERS: I will say in that connection, we have had no opportunity to inquire of these witnesses about that matter, because we did not learn of it until after the witnesses had testified and had gone. Of course if either of them were here, we could get at it in that way.

The MASTER: My recollection is, I have required practically every paper, where it was necessary to do so, to be produced. But it strikes me that this would be invading the province of a counsel.

Mr. BYERS: If counsel says professionally that all this stuff was memoranda which they got for their purpose, I concede instantly

that we were not entitled to it and would not ask for it; but then we will not quarrel about it.

Is Mr. Baehr, Mr. Hagenah or Mr. Lea in town?

Mr. GUERNSEY: They have not been here since the last adjournment.

The MASTER: There is one thing I want to state to counsel, and I will state it now so that it will be understood. I think perhaps I have expressed it in the order I made at the instance of General Byers. I want Mr. Haines and all of you to understand it. All of these books and papers that have been introduced in evidence are now a part of the records of the court in this case, and except by leave of court, no one has a right to take them out. Of course, that leave will be granted to counsel on either side in the preparation of their argument and in the prosecution of their work, as a
5030 matter of course. I haven't any objections to Mr. Haines

taking any of those books and records to his office during the interval of the court, unless counsel on one side or the other want them for the purpose of examining them, because I regard them important to preserve. I say this now so that you may understand my attitude on these matters and that there be no friction about it.

Judge CARR: Of course these records are records of the court. There are a great many books and records which have been introduced, and we have, as is the practice in our state court, each party has looked after its own exhibits. We never can get the stenographers to take care of the exhibits. These voluminous records we have kept in the vault. I do not understand that your honor suggests that we file them with the Clerk.

The MASTER: As I said, I have no objections to that, but I want it considered that they are the records of the court in this case. I do not want to require Mr. Haines to keep these records here in the court all the time, because that is unnecessary. I presume the books are used from time to time, and I have no objection to that. But whenever necessary and counsel for either side want them, then it is the duty of Mr. Haines to produce them.

Judge CARR: In order that we may be understood, in view of a little incident which happened, there never has been a time when counsel were refused any of these exhibits. In the case referred to, counsel wanted to take the records to their own office and Mr. Haines felt, under the circumstances, he ought not to part with them.

The MASTER: I understood the attitude of Mr. Haines.
5031 He is not a lawyer and perhaps does not understand these matters as well as we do. For that reason I made that order. I wanted it understood without any question hereafter. It is the practice in our district that each attorney takes care of his own exhibits, but when the opposite attorney needs them, he is entitled to them.

Is there anything further now?

Mr. BYERS: We want to recall Mr. Moul as a witness.

Judge CARR: We want to say, we will be perfectly willing Mr. Moul shall be produced.

Mr. BYERS: We also want Mr. MacOlsen.

Mr. HAINES: I do not know where we would find Mr. Moul now. He is out on the work, as the bailiff states, and we can probably locate him sometime today.

W. F. DOUTHIRT, re-called on part of the defendants, examined by Mr. Byers, testified:

Q. In response to a question last evening you produced what is marked "Transcript from George J. Roberts Construction Record," showing detailed costs of the construction of a gas holder at Des Moines, Iowa, and transcript from George J. Roberts Construction Record, showing detailed cost of construction of oil tank and water gas apparatus at Des Moines, Iowa, and what purports to be a ledger account under the name or title "Des Moines Contract Number 55" what purports to be the ledger account under the title "Des Moines Contract No. 37" and transcript from ledger 8-a of the United Gas Improvement Company, showing account of the Des Moines 5032 Gas Company, March 1, 1906, to December 31, 1910, and an instrument denominated Contract Between the Stacy Manufacturing Company and George J. Roberts, October 18, 1902, for the erection of a gas holder and tank on land adjoining gas works of the Capital City Gas Light Company at Des Moines, Iowa, together with certain specifications and blue prints. Are these all of the books and records of the United Gas Improvement Company that were used and kept by that Company in its transactions and relations with the Des Moines Gas Company and the Capital City Gas Light Company?

A. Yes.

Q. The question, Mr. Douthirt, or rather the information that we were trying to secure when you were on the witness stand last, was the manner, or rather the method adopted by the United Gas Improvement Company in closing the account that is represented by the two documents, one the Des Moines contract No. 37, the other, Des Moines contract No. 52. Are there no books or records of the United Gas Improvement Company of Pennsylvania that show how these accounts were closed?

A. Yes, there are.

Q. Where are they?

A. At Philadelphia.

Q. Why didn't you produce them?

A. You didn't ask for them.

Q. This is the question put to you after the examination in which you were asked to state if you knew how these improvements, this holder and tank and governor were paid for—this question was put to you, or request made: "The defendant at this time demands of you as secretary of the United Gas Improvement Company and 5033 as secretary of the Des Moines Gas Company, a complete detailed statement covering the building of the holder which has just been referred to, the water gas set, the governor and oil tank and boiler, and a statement showing the items charged on the books of the United Gas Improvement Company, also the original contract made by the United Gas Improvement Company with

Mr. Roberts for the construction of this apparatus, the several pieces of apparatus, and we also demand of you the production before this Master of the books of the United Gas Improvement Company showing the account kept between it and the Des Moines Gas Company of Des Moines, Iowa, covering the year- 1906 to 1910. We also desire to have you to produce for counsel and for the Master and for use in this case a detailed statement from the United Gas Improvement Company of all discounts and rebates on material and supplies furnished to the Des Moines Gas Company by the United Gas Improvement Company during the years 1906, 1907, 1908, 1910." Now have you furnished that statement covering the building of the holder which has just been referred to, the water gas set, tank and boiler, a statement showing the items charged on the books of the United Gas Improvement Company, and the original contracts—you notice that we wanted a complete detailed statement covering the whole business and not a part of it?

A. Your question covers two things, a statement and contract. I have to divide my answer between the two. First, as respects the statement, it is furnished you and you have it. Second, as respects what is mentioned here as an original contract made by the United Gas Improvement Company with Mr. Roberts for the construction of this apparatus, the several pieces of apparatus, I am told there never was any such contract.

Q. Well, Mr. Douthirt, to cut the matter short, is the matter that appears upon the two statements, Des Moines contract No. 5034 52 and Des Moines contract No. 57, all that appears upon the books of the United Gas Improvement Company with respect to the holder you were questioned about and the other apparatus?

A. It is, as you request it, a statement showing all the items charged on the books of the United Gas Improvement Company.

Q. That is not an answer to this question. I wanted to know if the items that appear on the two documents here, Des Moines contract No. 37 and the Des Moines contract No. 52 are all of the record that appears upon the books of the United Gas Improvement Company with respect to the holder and the other apparatus about which you were interrogated?

A. So far as any items are charged on the books of the United Gas Improvement Company, as asked for in your statement on page 4923 of the record.

Q. You examined the question so carefully and answered it in the terms that you thought it was put, did you?

A. I tried my best to get for you what I thought you wanted.

Q. Didn't you know the information we were trying to get?

A. I thought I did.

Q. Didn't I ask you a dozen times about the payment for this holder?

A. I thought what you wanted her- was to find out what the holder cost.

Q. The question we were trying to ascertain, you were interrogated about a dozen times was how this holder was paid for; that is what we were interested in now?

A. I told you the money was advanced by the United Gas Improvement Company. You have now the account showing it.

Q. How is it finally closed?

A. I can't tell you.

5035 Q. Why can't you?

A. I don't know.

Q. Did you make any effort to find out?

A. No.

Q. Where did you get this information that was furnished you?

A. That was furnished me on request by the Auditor of the United Gas Improvement Company.

Q. Who did the work?

A. I don't know.

Q. Who did you make the request to?

A. R. C. James, general auditor.

Q. You say you can't tell how this account was closed?

A. I can't tell you.

Mr. BYERS: We want to introduce all of these documents for what they are worth, being Exhibits 84-a, 84-b, 84-c, 84-d, 84-e and 84-f; we offer them in evidence at this time.

Excused.

JANSEN HAINES, recalled on part of the defendants, examined by Hon. H. W. Byers, testified:

Q. I find, Mr. Haines, in examining what the reporter has marked Defendant's Exhibit 84-d, which seems to be a sort of a detailed statement of the amounts paid out in the construction of this holder—I notice the payments are divided, apparently in two columns, one headed, "Paid at Philadelphia" and the other headed, "Paid at Works." Turning to the second page of the exhibit, I notice
5036 near the top of the page, where it says, Jansen Haines, report 27, 8-7, and then that is followed with Report 28, Report 29, under dates 8-21 and 8-28, for 168.25 and 77.27; I wish you would explain to the Master what if anything those items had to do with the building of this holder?

A. Will you show me the item?

Q. Yes. That seems to indicate that during the construction of that holder a part of the payments were made here, and I assume from what I read there, that they were made under your direction and that you reported to the United Gas Improvement Company the payments made here locally for the construction of the holder; is that what that means?

A. This payment here, shown on the second page of the exhibit you refer to, on the line following Jansen Haines, Report 27, 8-7, paid at Works, 56.96; then further over on the same line under the heading, Yard Connections, Labor, 56.96, would indicate to my mind that that payment was made for labor on the yard connections—for the pay roll which was paid for labor on the yard connection, and I can only indicate further in regard to that by the

practice under which these payments were made without looking up these specific payments further.

Q. Before you do that, report 27, does that mean that was the 27th report with respect to that particular property, that holder?

A. In reply to that I will say that I think you will find the details of these reports and expenditures made under them in another one of these exhibits which has been furnished you. On page 1 of this exhibit, 84-d, you will find on the fifth line, Report 1, under date of 10-25.

Q. Then that is what it means—27th report?

A. Each one of these reports were made weekly. Report 1 was made by A. Gilpin, the engineer who was acting for Mr. 5037 Roberts in the construction of this holder.

Q. Was he here?

A. He was here at that time and made that report. That was before I came to Des Moines. The reports which I made as acting for the engineer in the field for Mr. Roberts began, I believe, with Report No. 15, as shown here. I can not testify from my own recollection, but simply from the record as shown here. The money which was used to make these payments was furnished by the United Gas Improvement Company in the form of a draft which was given to me, was sent to me and was deposited to the local account of George J. Roberts, contractor, and these payments were made by checks drawn on that account, as shown on the reports which complete this exhibit.

Q. Have you got any of these reports, copies of them?

A. They are all copied, I think, in this transcript furnished you. These reports were simply weekly statements of the amounts paid out of this fund in the name of George J. Roberts, which payments were made by check, signed by me as engineer for George J. Roberts, contractor.

Q. There are no reports there—there is just a brief statement of the substance of the report?

A. There is a transcript of the report in this record.

Q. Just point out one of them?

A. On Defendant's Exhibit 84-b on page 11.

Q. Just read into the record what you claim is the report?

A. As shown under date of August 31, 1903: Disbursements as per report, Jansen Haines, engineer, period July 31 to August 7, 1903—Number 127. Pay Roll week ending 8-1-03. 56.96. Then follows another of the same amount, but it is in detail here in a different arrangement than on the other sheet.

5038 Q. That is what all these reports mean on that exhibit, just what you explained?

A. Yes, sir; I think I explained them.

Q. Where the report was by Gilpin it was a similar report, and where it was by Col. Pratt it covered the same matters?

A. It covered the same matter. Mr. Gilpin was sent here during the early stage of the work, because it required a great deal more personal attention, but during the latter part of the work, when it

was being completed, I acted as Mr. Robert's engineer in place of Mr. Gilpin.

The MASTER: Does this sheet, 84-d, relate entirely to the holder or other matters?

A. This exhibit 84-d contains the distribution of the amounts paid for the construction of the foundation of the holder and yard connections and also the governor and by-pass, and the extension to office building to accommodate the governor. I think these are all the items that are referred to under that contract No. 52.

Excused.

MACK OLSEN, called on part of the defendants, examined by Hon. H. W. Byers, testified:

Q. I desire to make a little further inquiry with respect to the valuation of the property down here. I want to inquire if you were furnished with any statement, or the testimony of any witness with respect to the valuations at any time in this case last 5039 spring or summer?

A. I don't understand just what you mean.

Q. Were you given any information by anybody with respect to the valuation of this property and what other persons had valued it at, sometime last summer or spring?

A. Yes, sir.

Q. Just when was that furnished you?

A. I couldn't tell you just when it was.

Q. About how many weeks before you were called here to testify?

A. Some—quite a little time.

Q. What form was that in; what shape was it furnished to you in, in typewriting or was it a study in the valuation of property; what was it called?

A. I think it was simply a typewritten statement of my own appraisal as I remember, of the different parts there, for me to look over again. I don't remember whether anyone else's was furnished me or not. I think it was only my own.

Q. Do you remember of having a statement of it out and examining it while coming down from home on the street car once last summer?

A. Possibly, yes sir.

Q. That was before this case was called?

A. Yes, sir.

Q. Had you given some testimony before that; had you gone somewhere and stated just what your valuations were prior to that time?

A. Yes, sir.

Q. Who else was present with you?

A. I think Mr. Kauffman and Mr. Read.

Q. Now when this statement was furnished to you, do you remember at this time just how many persons' names appeared in the statement as having fixed values and what the values were?

5040 A. No, sir.

Q. Do you have that statement yet?

A. I think not; I don't think I have any such statement.

Q. Was it destroyed?

A. I don't remember of any statement except the one that I had was called cross examination of myself on my own valuations.

Q. Who cross examined you?

A. Mr. Read.

Q. Was Mr. Kauffman present and was he cross examined at the same time?

A. I think he was. I don't remember. I came in a little late on my appointment. I think he did answer some questions.

Q. Isn't this true, that after you and Mr. Kauffman and the other gentlemen who were called there, except Mr. Mathis, weren't you furnished a transcript of what was taken down at the time you and the other gentlemen were, as you call it, cross examined about their valuations and wasn't that what you had on the street car the day I refer to?

A. I think possibly it was.

Cross-examination by W. L. READ, Esq.:

Q. Mr. Olsen, you appeared by appointment for the purpose of going over the matter of your testimony with Mr. Read, one of the attorneys?

A. Yes, sir.

Q. And you were examined, that is to say, you were asked questions and you made answers?

A. Yes, sir.

Q. That was taken down in shorthand, was it, or was it not?

5041 A. I think so.

Q. Now after your examination, if you call it that, you were given a copy and transcript of your own testimony?

A. Yes, sir.

Q. Of your own statement as you had given it that day?

A. Yes, sir.

Q. Were you given anything else than a copy of your own statement?

A. I think not. That was my impression, that was all I had. There may have been other papers, but my impression is that is all that was furnished me.

Q. That is all that you now have any recollection of, is it?

A. Yes, sir.

Q. Was that given to you upon your request or how did it happen to be given to you?

A. Just handed to me.

Q. Were you or were you not told when the statement was given to you that it was for the purpose of being looked over by you so that you could make any corrections or changes that you desired to make; was that statement made to you?

A. Yes, sir.

Q. Did you ever see a transcript or copy of the statements of any

other persons relative to real estate values other than your own statements, according to your recollection now?

A. I think I did; I am not sure.

Q. You think you did?

A. Yes.

Q. When do you have the impression you got a copy of such a statement, before or after your own statement?

A. I think at that time that I had seen this in Mr. Read's office, I am not sure as to that; but I have an impression I had seen
5042 others.

Q. Do you recall whose statements you think you may have seen?

A. No. It may have been verbal statements that was made, that I got the impression or the idea of some one else's values on the properties. I don't remember whether they was verbal statements or typewritten statements.

Q. Was that before or after you had made your own statements?

A. It was after.

The MASTER: What do you mean, when you gave evidence here or before that?

A. No, sir; before that. I have got a bad lip here and I can't talk very well.

Q. After you had given your testimony last summer here in court, were you furnished with a copy or transcript of your testimony?

A. Yes, sir.

Q. That was for what purpose?

A. To see if everything was there as I said it, or as I understood it.

Q. I didn't know but what you might have confused what you received at that time with what you previously received; are you in any confusion upon that?

A. I don't remember receiving anything but this copy of my own statement originally, and then this statement after the testimony in court, a transcript of that evidence.

Excused.

5043 B. F. KAUFFMAN, re-called on part of defendants, examined by R. O. Brennan, Esq., testified:

Q. I want to inquire whether or not you have during this trial and before this trial assisted the Des Moines Gas Company in securing evidence or witnesses with respect to the value of real estate, to any extent?

A. Yes, sir.

Q. What interest have you taken in that matter?

A. I have consulted with the attorneys on several occasions. I have consulted with real estate men, men who understood the value of real estate in Des Moines. I have argued the point a great many times with a great many people, to determine in my mind what the values

were, and to assist me in arriving at my valuations to prove to myself as near as I could that I was sound in *in* my judgment.

Q. And did you impress your views upon others with respect to valuations to the extent of arguing the points?

A. Yes, with a great many other people.

Q. Did you have any discussions with any of the witnesses in this case who have testified with respect to valuations?

A. Yes, sir.

Q. And the discussions which you had were along the lines which you have suggested in your testimony now?

A. Yes, sir.

Q. Was any attempt made, Mr. Kauffman, to secure a statement from the witnesses in advance of their being called in this case?

A. Why, there was a general consultation with the witnesses. I have had conferences with, I don't remember who the witnesses were, but I have had conferences with probably some four or five
5044 of the witnesses.

Q. With Mr. Olsen?

A. I have talked to Mr. Olsen.

Q. Mr. McCutcheon?

A. Yes, sir.

Q. Any other witnesses that you recall having talked with?

A. I think that I talked with Mr. Bolton also.

Q. And in the conferences to which you have called attention, was any effort made to reduce their statements to writing, short hand reports made of their testimony, or of their statements?

A. I think so.

Q. To what extent was a record made of their statements with regard to real estate valuations?

A. I don't know to what extent. There was a general consultation at some two or three different occasions, and some of those statements were reduced to writing; I am quite sure they were, in fact.

Q. Taken down by a shorthand reporter?

A. Yes, sir.

Q. And questions propounded and answers given in response?

A. Yes, sir.

Q. And witnesses cross-examined?

A. I am inclined to believe they were to some extent. I don't quite remember the full details of that. I know that I was cross-examined to some extent myself. I don't remember about the others.

Q. Now, Mr. Kauffman, were the shorthand notes translated or transcribed?

A. Some of them were that I saw.

Q. Copies furnished to any one?

5045 A. Mine were furnished me.

Q. Any other testimony furnished to you?

A. No, sir.

Q. Do you know to what extent the other witnesses were furnished with testimony or statements?

A. I cannot say except that I am assuming what statements they made were taken down and furnished to them, the same as mine were furnished to me.

Q. I understand you were present at the different conferences statements were taken?

A. Yes, sir.

Q. Do you remember being present all the time when all were taken?

A. I don't believe I was present all the time.

Q. The testimony was taken all at one time or different occasions?

A. There were different days. I think that I heard the statements Mr. Bolton made, a part of them, and I think I heard the statements Mr. Porter made.

Q. Was Mr. Mathis' statement taken, do you know?

A. I don't know.

Q. Were you present any time when he gave a statement?

A. No, sir.

Q. About what was the date of the conference to which you have referred?

A. Oh, I had conferences running from the first of December, 1910, up to, I expect up to the latter part of this spring or summer, first of the summer possibly.

Q. Well, I want you to be more specific, or have you to be more specific with reference to the time the statements were taken down in shorthand?

A. I can't give you those dates.

5046 Q. About the time?

A. Well, there was very little consultation between the middle of January and the middle of May. The statements were taken. I would say, between the first of December and the 15th of January, and between the first of May and the middle of June, about as nearly as I can give it to you.

Q. Let me see if I can refresh your recollection. There were some affidavits filed in this case along about the latter part of December or first of January this year?

A. Yes, sir.

Q. Now, of course you had a conference with respect to those?

A. Yes, sir.

Q. Then following that you secured from the other witnesses statements, did you not, following the hearing at Council Bluffs in January?

A. Well there were several witnesses who gave their statements as to the value of the property and that statement was given between the first of December and the 15th of January, as near as I can remember it. Those statements were not referred to that I know of until probably the middle of May, and at that time, at least a portion of them who made those statements were asked to confirm them in an argumentative way, to show why they had given those values.

Q. Was that the time when they had the conference at which the statements were taken down in shorthand and afterwards transcribed?

A. Yes, sir.

Q. Mr. Kauffman, were you employed by the Des Moines Gas Company with reference to this matter of assisting in securing testimony?

A. I don't know whether I was employed; I certainly expect to render a bill.

5047 Q. Have you rendered a bill up to this time?

A. No, sir.

Cross-examination by W. L. READ, Esq.:

Q. As I get it, there was first a statement, perhaps in the form of an affidavit, giving the values as fixed by the different persons, and that was the first form?

A. Yes, sir.

Q. And the second form of the statement was made and given in response to questions asked that were taken down in shorthand, and so far as your statements were concerned, a copy or transcript was given to you?

A. I had a copy of the transcript of my own statements.

Q. You spoke about cross-examination, you have in mind, do you not, that questions were asked witnesses in such a manner as to develop the basis and the soundness or lack of soundness of the information and the opinions of the witnesses?

A. Yes, sir.

Q. You refer to cross-examination in that sense only?

A. I assume it was merely an argument to establish the fact as to whether or not we knew what we were talking about.

Q. To test the soundness of the judgment?

A. To see whether we were good real estate men or not.

Q. In other words, you got the idea that the attorneys wanted to know something about how you knew or thought you knew, or what you thought you knew on the subject and took that plan of getting the information?

A. Yes, sir.

5048 Redirect examination by Mr. BRENNAN:

Q. Do you remember how many witnesses were examined in this manner?

A. I think that Mr. Bolton was, and Mr. Porter, Mr. Olsen and Mr. McCutcheon, to the best of my memory.

Q. Anyone else?

A. I think not.

The MASTER: They were all there together in the room?

A. No; I think that I was present at one time when Mr. Olsen and Mr. McCutcheon were there. I think that is the largest number that conferred at any one time.

Q. Did you interview any persons on the subject of real estate values who were not questioned or statements from whom were not received?

A. Yes, sir.

Q. How many?

A. Oh, I couldn't answer that question. I discussed it very generally with a great many people.

Q. With a view of having them testify or make a statement?

A. With a view of assisting me in determining whether or not my judgment of the facts was sound.

Q. Well you talked with a number of persons, and from the number with whom you talked you selected those who gave their statement.

A. I think that there was only one witness with whom I discussed the thing—well I couldn't say on that, Mr. Brennan. I discussed it generally with all the witnesses as well as with a great many others who were not witnesses.

Q. What I want to know is this: you were endeavoring of course—not criticising you for it—you were endeavoring to secure witnesses who could give their valuations of the real estate in this case, witnesses who would be favorable or as favorable to the Company
5049 as you could secure?

A. No, sir.

Q. You did talk with a number of persons?

A. The only idea I had was simply to determine as nearly as possible what the actual value of the property was and to discuss that with the people who I thought had better judgment along that line.

Q. You secured from them your notion of the value of this real estate?

A. Yes, sir.

Q. You did that practically in every instance?

A. In the instances that have been mentioned here, yes.

Q. You recommended the persons whose statements were taken?

A. I couldn't say definitely as to that.

Q. Did you make any recommendations?

A. Yes, sir.

Q. To Mr. Haines or anyone else?

A. Yes, sir.

Q. And did your recommendations include any other persons than those who testified on the subject of the real estate valuation?

A. I think the only recommendation I made was the statement I made to Mr. Haines and Mr. Read, that Mr. McCutcheon was the best posted real estate man in the state of Iowa, and by all means they should secure his testimony.

Q. You had talked with Mr. McCutcheon about the matter before you made the recommendation?

A. No, sir.

Q. After?

A. After.

Q. Do you have a copy of the testimony, Mr. Kauffman, that was given you at or about this time?

A. I couldn't say; I don't believe I have now.

5050 Q. If you have it, do you have any objections allowing us to examine it?

A. I have no objections to your examining it if I have it in my possession. That would be a matter for you gentlemen here to decide rather than for me to decide.

Q. If you have it in your possession, you have no personal objection of letting us have an opportunity to examine it?

A. I am not afraid of what I say in writing as well as verbally.

Q. Will you make a search and let us have it?

A. I will.

Redirect-examination by Mr. READ:

— Mr. Kauffman, this conference, or at least the conference when the statements in writing were taken, was with the attorneys of the Gas Company?

A. Yes, sir.

Q. Now with respect to your interviewing people—you had a definite idea with respect to the value of this real estate, did you?

A. Yes, sir.

Q. Now, for instance, Mr. McCutcheon, did you interview him at any time?

A. Yes, sir.

Q. Did Mr. McCutcheon have a definite idea?

A. Yes, sir.

Q. Was that inspired by you or was it one that he entertained?

A. His opinion was made up entirely independent of my own. I have forgotten his total appraisal, but I remember very distinctly arguing for an hour or two as to the value of one section of the piece we have never agreed upon.

5051 Q. With respect to his valuations he had his own conception?

A. Yes, and I had mine.

Q. Take Mr. Bolton, did he have his own conception of the values, or was it inspired by you?

A. His conception was his own.

Q. Is that true of the other witnesses who were examined?

A. Yes, sir.

Redirect-examination by Mr. BRENNAN:

Q. Were these arguments or discussion mainly for the purpose of seeing if you could agree upon the values of the property?

A. Certainly not.

Q. What was the purpose of the discussion?

A. The purpose of the discussion was to confirm what we thought was the proper value. The discussion was beneficial to me.

Q. An exchange of views with respect to the property in question?

A. Yes, sir.

Q. And to endeavor to secure a modification of the views of some particular witness?

A. Not necessarily.

Q. Did you secure a modification of the views of any witness?

A. I think not.

Q. By reason of these discussions?

A. I think not.

Q. How many times did you talk with Mr. Porter?

A. I think once, all I can recollect.

Q. Did Mr. Porter give one or more statements?

A. Only one as far as I know. I am not sure whether he gave any yes, I guess he did give one.

5052 Q. You think but one, as nearly as you now remember?

A. I believe that is the case.

Recross-examination by Mr. READ:

Q. You have been asked to account for the discussion and arguments you real estate men had. I suppose it is true of real estate men, as it is of others where there is a difference of opinion and judgment, each one is trying to maintain the correctness of his own?

A. Yes, sir. The basis of making up values is so different with different men. One man may say a piece of property is worth ten thousand dollars and give his reasons. I may say it is worth ten thousand dollars and give different reasons, and we both arrive at it from different conclusions, and the additional reasons I give the other man and those he gives me may assist us in confirming in our own minds that we are correct.

Excused.

At this time, 12 m. an adjournment was taken until 1:30 p. m.

5053

1:30 P. M., WEDNESDAY, November 1, 1911.

Complainant offers complainant's Exhibit No. 93, being a statement of revenue and cost of operating for the ten months ending October 31, 1911. This is subject to verification by defendants if they desire to verify it.

HENRY MOUL being recalled and examined in chief — Hon. H. W. Byers, testified as follows:

Q. Who if you know made up the list of items of mains and services that was used in the inventory?

A. Mr. Walters made it up, I believe that was the name.

Q. And what part did you have in it?

A. He got the information practically from me.

Q. You furnished the information upon which Mr. Walters made up the inventory? Any way you furnished the information upon which he made up the list of the distribution system of pipe and all that sort of thing?

A. Yes, sir.

Q. I find in the inventory under the head of street mains distribution system 2 and one half inch and under 33947 feet. Now how much of that is abandoned pipe, that is not in use now?

A. Well I don't think there is any of abandoned.

Q. Are you sure about that?

A. Well no I could not say positively to a foot or two. If any of it has been abandoned it has been replaced.

Q. What became of the pipe that was abandoned?

A. When we abandon a piece of pipe we leave it in the ground.

COURT: I understand you to say none of this two and a half inch pipe has been abandoned?

5054 A. It is all in use practically. Maybe a small portion of it possibly but not very much.

Q. There is 1835 feet of this two and a half inch pipe listed here as being under brick and concrete Pavement. Where is that do you know?

A. Two and one half inch?

Q. Two and one half inch pipe.

A. I don't know of it at all any two and a half inch.

Q. There is 3300 feet of two and a half inch pipe listed in here as being under pavement brick and sand, do you know where that is?

A. I don't know of any two and a half inch pipe at all.

Mr. READ: That is two and a half and under isn't it?

Mr. BYERS: Two and a half and under.

A. That is different.

Q. Where is any of this 1835 feet of this two and a half and under under brick and concrete, where is it located?

A. Some on Sixth street between Cherry & Mulberry.

Q. In use now?

A. Yes, sir.

Q. How much of it is there?

A. I could not just exactly say, possible half a block.

Q. Did you furnish this information that you gave in writing?

A. No, sir.

Q. How did you furnish it?

A. Verbally outside of what they had of record in the office. They had a record in the engineer's office that was practically correct with a few exceptions and we corrected those and this inventory was supposed to be a corrected copy of their records.

Q. This pipe you say is down here between Mulberry and 5055 the other streets you mentioned, what size is it?

A. Two inch.

Q. And is that being used now as a main?

A. Yes, sir.

Q. That is not abandoned?

A. No, sir.

Q. Where is the rest of this 1800 feet?

A. Well it is pretty hard to just remember that from memory.

Q. That is the way you gave it to this man Walters from your memory?

A. That is true, but we took it a different way from that because he took a street at a time and asked me what was on the street I did not jump all over town and tell him where was a piece here and there. If you will ask me any street in town I will tell you any size in that street.

Q. All right I will ask you a street or two. What is the size of the pipe on 32 street, the main on 32d street?

A. From where?

Q. Thirty Second street?

A. What part of 32 street?

Q. Any part of it.

A. We have got four inch and two inch on 32nd.

Q. How much four inch?

A. I could not tell you that amount laid on each street.

Q. How did you get at it?

A. That goes in bunches, you take a section of it today and a section probably a year from today and add it together and get the total.

Q. Who was Mr. Walters, do you know who he was?

A. No, sir; I don't.

5056 Q. Did he know anything about the distribution system except what he got from you?

A. He only knew what was in the engineer's office and what information I gave him. He tested it out in some instances, I don't know how much to prove whether it was correct or not.

Q. Take for instance 25th street. Do you know what sized main is in the ground on 25th street?

A. Four inch.

Q. How many feet of it?

A. Well there is several blocks of it on 25th street.

Q. When was it put in?

A. 25th street was put in I think in 1896 the first of it.

Q. The four inch pipe?

A. Yes. Then it has been added to since that time.

COURT: 1896 or 1906?

A. 1896.

Q. What size pipe was in there before you put in the four inch pipe.

A. Wasn't any in on 25th street.

Q. None at all?

A. No, sir. Well might have been a few around the corner, Cottage Grove or University or something of that kind, a short piece taking care of a house.

Q. Where you put in four inch pipe for the purpose of replacing inch and a half pipe, I wish you would tell us how many places you know of that was done?

A. Well I don't know as I can call that to memory right now. I can't call an instance to mind now where we traded.

Q. Is that because your memory is not clear about it?

A. My memory is clear enough.

5057 Q. There was a good many places wasn't there?

A. Well no, not very many. Only as I said before little short pieces of that kind. There was none of any particular length whatever.

Q. Well let's see if you remember one particular instance. You know all about the pipe that is laid in west Fourth street don't you?

A. Yes, sir.

Q. What kind of pipe is there there?

A. There is four inch, six inch and there is a little piece of three inch. Now by the way though there is a pi-ce of inch and a quarter pipe that used to run from the Rock Island down possibly to the Q that was abandoned for four inch.

Q. That is, it was substituted, there was four inch pipe put in and inch and a quarter abandoned?

A. Yes, sir.

Q. And it is there yet?

A. Inch and a quarter is.

Q. There yet?

A. Yes.

Q. And not being used?

A. No, sir.

Q. First tell me when you put in the six inch main on west Fourth street?

A. I can't tell you that sir.

Q. Can you give some idea?

A. No, sir; it was here when I came.

Q. The six inch pipe?

A. Yes, sir.

Q. There was not put in there then in 1906?

A. Not six inch pipe.

5058 Q. No six inch pipe at all?

A. It was all in Fourth street. There was a little pi-ce down here by Locust street which was put in.

Q. I find in the books of the company a memorandum of 200 feet of six inch pipe on west Fourth street to take the place of 200 feet of three inch pipe.

A. That is down by Locust street.

Q. Where?

A. Locust and connected with the six inch coming from Walnut.

Q. What did you do with the three inch pipe?

A. Left it in.

Q. Been any substitution since then?

A. No, sir; tha- is the last put in on Fourth street.

Q. Give us your judgment of how many pieces of main in these different streets have been abandoned in the last five years.

A. That is two and a half or less?

Q. Where you put in larger pipe and abandone- the smaller.

A. In the last how many years?

Q. Since 1906.

A. Well I would judge to take the small pipe that is not in use that has been left in the ground, I would judge that there is possibly a couple of thousand feet, something like that.

Q. You know where east 15th street is?

A. Yes, sir.

Q. What size pipe is in that street?

A. A 12 a 3 and a four.

Q. When was the 12 inch put in?

A. I can't give you all the dates of those.

Q. Can you tell anywhere near?

A. I don't keep them that way.

5059 Q. What was the 12 inch pipe put in for, substituted for some smaller pipe?

A. No, sir; to increase the pressure.

Q. Increase the pressure what for, to carry gas to the smaller pipe?

A. We had in a main on 15th street and served several little *syubs* running north and south of Court Avenue and we run this 12 inch pipe to circulate across to 15th over to Hubbell and over to 14th and tied it in with Washington so as to get a circulation and increase the pressure in that territory.

Q. That didn't have anything to do with the smaller pipe.

A. Not a thing.

Q. Was there some other street about the same time you put in larger pipe to increase the pressure?

A. Did it on east Court Avenue.

Q. And on Fourth street?

A. No, we did not.

Q. You know where east Washington is?

A. Yes, sir.

Q. What kind of pipe is under that street?

A. Four inch and eight inch.

Q. When was the eight inch put in?

A. Well I would say about four years ago, something like that.

Q. How much four inch pipe is there on that street?

A. One block.

Q. In which block?

A. Between Pennsylvania Avenue and east Ninth street.

Q. And is it in use now.

A. Yes, sir.

Q. Is there any smaller pipe in that street?

A. No, sir.

5060 Q. What became of it?

A. As I said before the small pipe that was in was used to satisfy a corner house and it is still in use, when we put the four inch in there we didn't remove that, we left it still in use.

Q. What did you do when you put in the eight inch?

A. The eight inch we did that to connect up the but ends on Ninth street, 12th street and 13th and to connect with the twelve inch on 14th. Run that as a header to increase the pressure.

Q. What did you do with the inch and a quarter pipe on that street?

A. In some cases cut it out where the new main reached, connected with the new main and in other cases left it to supply the house it was supplying.

Q. Is it being used there yet?

A. Most of it is.

Q. All the inch and a quarter?

A. Yes. A very small portion of it was abandoned.

Q. When?

A. At the time we put in the eight inch.

Q. Do you know how much of it?

A. Oh I would say possibly a hundred feet maybe.

Q. That is on east Washington?

A. Yes, sir.

Q. It is your memory it was about 100 feet?

A. Yes, sir.

Q. On Woodland, what size pipe is used there.

A. There is a four and three and a sixteen.

Q. Which was put in first?

A. The three.

5061 Q. How much of it is there in now being used?

A. Well I think that three inch starts at 12th street and ends at 15th. Then starts four inch running to 19th.

Q. About how many feet of three inch pipe on that street?

A. The distance between 12th and 15th street-, I would say about 800 feet guessing at it.

Q. Is that the amount you gave to this Mr. Walters?

A. I could not say to that.

Q. How many feet of four inch pipe?

A. I didn't give him any feet, gave him the lay of it and he scaled the map to get the number of feet.

Q. You just tell me where it was then he figured out the feet himself.

A. He scaled the map and got the exact amount and in some instances went and measured the block to see if it corresponded with the map.

Q. Do you know how many feet of four inch pipe on that street?

A. The four inch pipe runs from 15th street to 21st.

Q. About how many feet?

A. I would say pretty close to a thousand feet.

Q. How much of 16 inch pipe?

A. Sixteen on Woodland Avenue from 19th to 25th that would be about 15 or 16 hundred feet.

Q. You know where Ridge Road is?

A. Yes, sir.

Q. How much pipe is there out there and what kind?

A. Ridge road, what portion of that do you term Ridge Road, I am kind of mixed up in that territory.

Q. As I understand that street it is the one that runs up there by where Mr. Clark lives, north of where he lives.

5062 A. Just a block as I understand. 28th and what used to be Linwood Road, 28th to 29th.

Q. What kind of pipe have you got in there?

A. Four inch and inch and a half in there.

Q. How much of each do you have in there?

A. Four inch ties in at Linwood, 29th and ties in 28th, I would say 600 feet in that block. The inch and a half goes from Linwood out to about half way, I would say about three hundred feet of that.

Q. Isn't any inch and a half pipe there at all.

A. Yes, sir.

Q. You sure about that?

A. Yes, sir.

Q. How did you satisfy yourself there was?

A. Because I put it there.

Q. Put it in yourself?

A. Yes, sir.

Q. When?

A. That was quite a long while ago. That was way back in 1891 or '2 that went in there, a good ways back.

Q. Now how many feet or how much of that inch and a half pipe did you give to this Mr. Walters to go into the inventory for Ridge Road?

A. I think I have it all to him.

Q. About how much was it?

A. I think about 300 feet if I remember right.

Q. Inch and a half.

A. Yes, sir.

Q. How much four inch? Did you say about 600 feet in that street?

A. I think the block is about 600 feet long, maybe less or more.

Q. You have every facility now for answering these questions for me and you are just as certain about what you say about it as when you furnished the information for Mr. Walters?

A. I am using the same method exactly.

Q. Where is East H street?

A. I can't tell you.

Q. If you can't tell, how could you give the information about the pipe on that street?

A. I didn't give him any information on H street, he had another name for it.

Q. East H street.

A. Never heard of it.

Q. Don't know where it is?

A. No, sir; he gave another name, never gave it that way.

Q. Have you any pipe at all on Easy H street?

A. I don't know where H street is.

Q. You furnished information about it?

A. Yes, that is all true, but it was under another name, it was not H.

Q. What name do you think it was?

A. I don't know. If you tell between what streets it is I could tell you.

Q. You know where I street is?

A. Yes, sir.

Q. Where is it?

A. I know where it used to be.

Q. Can't you locate H street by I street?

A. No, sir; I can't.

Q. Mr. Walters didn't know anything about the streets?

A. No, he didn't know, he only had the records and the new changes. I am not familiar with those new changes of names of streets.

Q. What kind of pipe is on I street?

A. Four inch.

Q. And how much of it?

A. I would say that block is pretty close to 400 feet long.

Q. How much pipe on the street?

A. Before 400 feet about.

Q. 400 feet of four inch pipe?

A. I am only guessing at the width of these blocks. I may not get it correct.

Q. I am trying to get the same information you gave this man; if you guessed at it then guess now.

A. I didn't guess at the length of the blocks.

Q. Is there any other pipe on I street except this 400 feet of four inch pipe?

A. A little piece of inch and a quarter satisfying a corner house.

Q. How much of that?

A. Possibly 75 feet maybe.

Q. No other kind on that street?

A. No, sir.

Q. You know where Francis street is?

A. Yes, sir.

Q. What kind of pipe on Francis street?

A. Four inch.

Q. How much of it?

A. Well it runs up from—there is about 700 feet I guess over there.

Q. 700 feet of four inch pipe?

A. I can give the beginning and ending of it the same as I did him and you can scale the map to get the feet the same as he did.

I am not burdening my mind with feet in the street.

5065 Q. You know a great deal more about that than I do.

A. I will give you the beginning and ending of it and you can determine how many feet in it. I have got to guess at the width of the blocks from memory, but if I had the map here so I could scale it I could give the same information I gave him.

Q. You did scale the map and give him the information of the scaling?

A. No, sir; gave him the information of the beginning and ending point and he scaled the map and got the number of feet.

Q. Give me exactly the same information you gave Mr. Walters about Francis street and I will be satisfied.

A. Francis street is four inch, starts 20th street and goes east to the alley, about 150 feet east of the alley turning south on the top of the hill.

Q. Is that all the information you gave him?

A. Yes, sir.

Q. And from that he made up the pipe that is on Francis street?

A. Yes, sir.

Q. Now Witmer street, you know where that is?

A. Got me guessing again.

Q. You don't know where Witmer is?

A. Not by that name.

Q. This pipe was not put in very long ago?

A. That is all true too.

Q. How did Mr. Walters find out about this street?

A. That pipe might have been put in there before the names of these streets was changed. Tell me what streets it is between. These new names bother me considerable.

Q. I am talking about 1907.

5066 A. I don't know any street by the name of Witmer.

Q. You know where Hubbell street is?

A. Yes, sir.

Q. And Hepburn?

A. That is another street I don't know.

Q. And McCormick?

A. I am not very familiar with that territory.

Q. You know where Sampson is?

A. I am not right certain whether I do or not. It is over north-east in that territory but I could not pick it out.

Q. You know where High is?

A. Yes, sir.

Q. And know where 8th is?

A. Yes, sir.

Q. What kind of pipe on 8th street west?

A. On 8th street you have got two, four and eight. Take four and then you have got six, then you have got four again.

Q. How much four inch pipe is there on 8th street?

A. Well sir, your four inch pipe on 8th street starts at Walnut and goes to Grand, then it jumps and goes to Park and Chestnut and it runs four inch to School. Then it is six inch from School to Forest avenue and four inch from Forest avenue to the other side of Franklin. Now the number of feet I could not tell you.

Q. You have given me now the same information you gave Mr. Walters?

A. Yes, starting point and ending.

Q. And it ended the other side of what street?

A. The other side of Franklin it ends.

5067 Q. You know where Guthrie street is?

A. Yes, sir.

Q. Where is it?

A. It comes right along the north side of Union Park, begins at what they term now North Union, and it goes east. I think it is opened up possibly to 15th.

Q. It is a short street?

A. About four or five blocks long now.

Q. What kind of pipe in use there?

A. Four inch.

Q. Anything else but four inch?

A. A little strip of inch and a quarter satisfying two services.

Q. How much inch and a quarter?

A. I would say both jobs together was possibly 150 feet.

Q. You mean both four inch?

A. No, the small jobs.

Q. Both small jobs was about 150 feet?

A. Yes, sir.

Q. You have given all on that street?

A. Yes, sir.

Q. The same information you gave Mr. Walters?

A. No. I didn't give you a piece of four inch on Guthrie running from East Ninth street west about 250 feet. Then we have got a four inch this side of 12th going to 14th, four inch. Now you have got all that is on Guthrie.

Q. That is all that is on Guthrie?

A. Yes, sir.

Q. You know where Terrace Drive is, do you not?

A. Well that is in one of those—Terrace Drive, is what they call Forest Drive now.

5068 Q. No, I think Terrace Drive and Forest Drive are two different streets.

A. Comes right from Hubbell's barn and goes to the street Byers lives on?

Q. No, running off of Grand Avenue between Hubbell's and Fullertins.

A. Well they call that Forest Drive from Grand Avenue.

Q. How much pipe and what kind is on Terrace Drive?

A. That starts at Forest Drive, I suppose it would be, and runs around to go east and then go south down to, I don't know what the name of the street is that Major Byers lives on ain't that Terrace Drive?

A. Yes.

A. There is about 350 feet in there, come down the first block whatever it is.

Q. That is the best you can tell about it.

A. Yes, that comes from one block to the other.

Q. Saylorville, Road, do you know where that is?

A. Saylorville Road, is the same as Eastern Boulevard.

Q. The same as Penn. Avenue isn't it part of the way?

A. Oh yes, that is right, Penn. Avenue.

Q. Do you know what kind of pipe on that street?

A. Penn. Avenue comes down to Locust and you get three and four and go to six, then you have got inch and a half.

Q. How much inch and a half?

A. Well now let me see, there is about pretty close to 250 feet I guess, across three lots. About 250 feet I guess.

Q. That is all the information you have about that street?

A. That is all.

Q. Can you give the names of streets in Valley Junction?

5069 A. I am not very familiar with them.

Q. You have charge of that territory do you not?

A. I have as far as extension and new service work is concerned.

Q. You don't know the names of the streets your distribution system is on?

A. I know the names of the streets but I most generally have got to go out there to get them twisted around which comes first.

Q. You gave Mr. Walters information about Valley Junction.

A. No, sir; I think he took that off of my returns that I had made from Valley Junction.

Q. He got information either from you or from records you had made?

A. Yes, sir.

Q. You can't now give me the streets?

A. I can give you a good many of them.

Q. You know where Ascension street is?

A. Yes, sir.

Q. Is that in Des Moines or Valley Junction?

A. That is in Des Moines.

Q. Where is it?

A. It is up this side of North street.

Q. How much pipe have you got on that street?

A. We haven't got any.

Q. Is Scott street in Valley Junction or Des Moines?

A. It is in Des Moines.

Q. And Railroad Avenue is that in Des Moines or Valley Junction.

A. Both, got one in Valley Junction and got one in Des Moines.

Q. Where is Railroad Avenue in Des Moines, along the tracks?

A. Down by the Rock Island line from Third to Fourth.

Q. Wilbut street, where is that.

5070 A. I can't tell you that. Wilbur is a new one on me.

Q. And Montgomery? What pipe have you got on either of those?

A. I could not tell you.

Q. Searles street, you know where that is.

A. Yes, sir.

Q. You know what pipe you have got there?

A. Yes, sir.

Q. Tell us about that.

A. Got four inch running from Easton Boulevard north to I guess it goes about a thousand feet north of Easton Boulevard.

Q. Is that all?

A. All we have got on Searles.

Q. Do you know where State street is?

A. Yes, sir.

Q. What kind of pipe have you got in on that street?

A. Six, four and 12.

Q. When was the 12 inch pipe put in?

A. About four years ago I believe, something in that neighborhood.

Q. How much.

A. About four or five years ago.

Q. What was it in for.

A. Increase the pressure.

Q. Any other purpose?

A. No, sir.

Q. Sure about that?

A. That is all it was put in there for.

Q. Did it take the place of any other pipe.

A. No, sir.

Q. Sure about that?

A. Yes, sir.

Q. And no other pipe was removed when it was put in?

5071 A. No, sir.

Q. Nor abandoned?

A. No, sir.

Q. Sure about that?

A. Yes, sir.

Q. What other pipe is there on that street now?

A. Well there is six four and 12.

Q. Is that all.

A. That is all the sizes on State street.

Q. All that is in use there?

A. Yes, it is all in use, every bit of it.

Q. That is the only kind of pipe there is there?

A. That is on State street yes.

Q. This 12 inch pipe that is on State street, was it all put down at the same time?

A. No, sir.

Q. Put down at different times.

A. Yes, four or five different times.

Q. I find this kind of a memorandum, 300 feet of 12 inch main on State street, 200 feet on inch and a quarter pipe to be taken up or abandoned. Do you know anything about that?

A. Yes, sir.

Q. Then there was some 12 inch main there substituted for smaller mains?

A. Didn't substitute it, didn't take it up.

Q. What did you do with it?

A. Left it there, in use how.

Q. How in use?

A. Because satisfying houses it did satisfy.

Q. Who is served from there now, give the name of one
5072 person.

A. I can't do it. I can't tell you that, I can take you over there and show you.

Q. Don't you know how it is hooked up over there?

A. Yes, I can show you, but I don't know the man's name that lives there.

Q. You don't know the people, is that what you mean?

A. That is what I mean.

Q. Here is another item, 370 feet of 12 inch main on the same street, 175 feet or inch and a quarter pipe to be taken up or abandoned, what do you know about that.

A. That runs west from 13th street, that inch and a quarter was abandoned.

Q. That was actually abandoned. Then there was some substitution there?

Q. Well just on that block.

Q. So that had slipped your memory?

A. Well I hadn't got down the street that far.

Q. Do you remember of overhauling any of the mains of the city recently where paving was about to be done?

A. Yes, sir.

Q. About how much of the work do you remember has been done?

A. Oh we have done—well how far back, what do you mean by recently the last year?

Q. Within the last four or five years.

A. Oh we have done an enormous sight of it.

Q. Give us some idea about the enormity of it.

A. I think the last four or five years. I think Locust street was overhauled from the river to 10th street or 8th, 10th I guess it was, and we overhauled Grand Avenue, you might say from the river too. I don't know as that would be the last four or five 5073 years but it is right recently anyhow just ahead of the pavement and we overhauled 28th street from University to Forest, overhauled Forest Avenue ahead of paving from 27th street to 36th I guess it was, we overhauled 34th from University to Forest and overhauled 27th street—31st street from Kingman I should have said, to Forest, 28th street it was from University to Forest and then 31st street from Kingman to Forest and Cottage Grove Avenue from 31st to 39th.

Q. Any others?

A. I don't know whether I can bring them all to memory just now or not.

Q. How long had this Locust street pipe been in before you overhauled it?

A. That was here before I came. I can't tell you its age.

Q. Been there a good many years.

A. Yes, sir. That is a portion of it. A portion of it is new, from Second street up to Fourth is new.

Q. Put that in new?

A. Put that in at the time just ahead of the paving. The rest of it is old.

Q. This on 28th street could not have been very old could it?

A. No, that I would say was put in about 1897, somewhere in there.

Q. You overhauled it in the last three or four years?

A. Yes, I have.

Q. Ahead of the paving?

A. Yes, sir. We make that a practice as a general thing.

Q. That has been your practice right along ever since you have been with the company?

5074 A. Yes, sir.

Q. Kingman is comparatively a new street is it not?

A. Well there was some of that put in from 24th street to 35th

street has been in there, well it must have went in there in 1897 or '8. Then from there west it is about I think three years ago.

Q. What sized pipe is used on Kingman?

A. There is an eight inch to 35th and then two lines of four inch from there to 44th I guess some would call it, some say 45th. There is a jog in the street out there.

Q. 44th or 45th, across a block?

A. The street jogs here one calls it 44th and over here one 45th.

Q. How many feet would you say on Kingman?

A. I would think about 2500 something like that is single line that is of the four inch.

Q. I mean four inch.

A. That is the single line of course, two lines.

Q. Well how many feet altogether of four inch pipe.

A. Pretty close to 5000 feet.

Q. Well is there that much?

A. I would have to measure it up.

Q. Was it measured up when you gave it to Walters?

A. Yes, sir.

Q. Did you go out with him and help measure it?

A. No, I told you before I gave him the beginning and ending points and he scaled the map in a great many instances. In some places he went out with a tape line him and some other fellow to prove up whether or not the map was correct.

5075 Q. Of course the only way he could measure the pipe by scaling the map would be to map the streets correctly and any pipe that extended from one cross street to another?

A. That is the way he did.

Q. Part of it that was in the middle of the street or ran around the corner he could not do it by scaling the map.

A. No.

Q. When you said about a thousand feet north of a certain place and I—

A. In cases like that he took my return, my card I had turned in in cases I had measured it and got the number of pipe I used and got the number of feet given. In the case of a street like Kingman Avenue 28th street to 44th, he could scale that on the map. He could also look up my returns when the pipe was laid and get the amount of pipe used and that would give the amount of feet used.

Q. Is that the way you got Kingman by looking up your records did you lay all the pipe that is on Kingman?

A. Yes, sir.

Q. And laid it in the last few years, probably since 1897.

A. I think it was in 1897 or '98 that the first was laid and the last was laid I think four years ago the four inch part of it and part of it was laid this year.

Q. The west end of it was laid this year.

A. Yes, sir.

Q. There is nothing there but four inch and eight inch?

A. Now I disremember, I believe it is six from 24th to 25th, I

believe that is six if my memory serves me just right, I ain't certain about that. Six off of Grand Avenue and four—I believe it is all eight inch, that one block might possibly be six, but I doubt
5076 it.

Q. Well at any rate you are sure it is all either six eight or four.

A. Yes, sir.

Q. There is no other size of pipe out there?

A. Not on Kingman.

Q. I mean on Kingman.

A. No, sir.

Q. Now can you give us some idea about the number of feet of pipe there is in the Valley Junction system large and small.

A. No, I don't think I can.

Q. How much of a plant is that out there?

A. I would judge that there is possibly somewhere about five miles.

Q. And what size pipe is it largely?

A. Well principally four inch, there is some ten.

Q. About how much of ten do you think.

Q. Let me see, it leads from First to Elm, I should say about 12 or 15 hundred feet of ten inch, about that much eight inch the six inch leading from Vine to Railroad, there would be about 3000 feet of six inch and the balance of it four.

Q. About 2000 feet of six inch?

A. Yes, sir.

Q. About 2000 feet of four?

A. No, the balance of it would be four.

Q. How much eight inch did you say?

A. There is from Fifth to Ninth, about 1500 feet.

Q. Did you give the amount of ten and 12 inch, how much ten inch pipe?

A. Ten inch leads from First to Fifth.

5077 Q. How many feet?

A. About 1500 feet of that, about the same as the eight.

Q. About how much of 12 inch?

A. Not any 12.

Q. And nothing larger?

A. Ten, eight, six and four.

Q. Are there some buildings out there?

A. Yes, sir.

Q. Tell us something about the buildings?

A. There is about 2000 dwelling houses out there, something like that big and little, no very large ones.

Q. That is not what I meant, I meant that the gas company uses in connection with the gas plant property.

A. They have a governor house out there, sitting right in Valley Junction, then they have their office and that is all I know of that they have got.

Q. This meter house is just a small affair?

A. Well yes, call it a small affair.

Q. What was the other building you spoke of?

A. The office.

Q. What is it a small affair?

A. No that is a pretty good sized room.

Q. Frame or brick?

A. I think brick.

Q. It belongs to the gas company?

A. That I could not tell you.

Q. They use it?

A. Yes, sir.

Q. Anything else out there in connection with it?

A. Not to my knowledge.

5078 Q. Do you know the number of services there are out there.

A. No, I don't believe I can tell you.

Q. About how many?

A. Well there is pretty close between 3000 and 3500, I guess something like that.

Q. You don't mean 3000 or 3500 do you?

A. No there is about—well there is about 2500 I guess, 2000 or 2500 services, something like that. Of course I could not tell that, I am only guessing at that.

Q. Don't you have anything to do with that.

A. I do, but I don't keep a record of that.

Q. You put them all in?

A. I sent them in, yes I don't keep the numbers.

Q. How far this way from the main part of Valley Junction is what you would call the dividing line between Des Moines and Valley Junction, speaking now of the gas plant.

A. Well their meter house sets between First and Second in Valley Junction and the main section of the business is along about 5th street so it would be about four blocks this side of the center.

Q. That is not what I wanted to get at. Where is the dividing line where you would call it between Valley Junction and Des Moines in speaking of service of the gas company where would be the dividing line?

A. The dividing line between Des Moines and Valley Junction is First or 63 street.

Q. From there on what size pipe is there?

A. Which do you mean, in to Valley Junction?

Q. Yes.

A. It starts with a ten.

5079 Q. Hooks on to what size pipe?

A. From Des Moines in.

Q. Yes.

A. Six inch high pressure.

Q. And that ten inch runs to the central station?

A. Up to Fifth street, from there it goes into the governor then out of the governor into ten inch and then ten inch to Fifth street and then reduce to eight and six and so on around the town.

Q. You have given us in a general way about all there is out

there have you in the way of pipe and buildings and other apparatus?

A. Well as far as my knowledge. As far as the building is concerned the possession of the gas company out there, I don't know what that possession is.

Q. I don't ask you who has title, I am just trying to get at the character of the property used?

A. Well I have told you as far as I know.

Q. If I remember your testimony you have been in charge of the field work, I don't know whether you call it that or not, the work with the distribution system right along for several years?

A. Yes, sir.

Q. At least ten years?

A. Yes, sir.

Q. And when was the largest part of this Valley Junction system put in?

A. Well I can't give you the year.

Q. About when?

A. I would say about five years ago.

5080 Q. That is that it was finished then?

A. The big end of it you said.

Q. Was the big end of it finished prior to five years ago?

A. Well somewhere in that neighborhood, I would not say just when the big portion of it was put in say this fall like now and then next spring they connected it up. They go- no use out of it that winter practically, then the next spring run the high pressure out there and connected it up. That was the big bulk of the work.

Q. Of course you can't tell when the high pressure was run out there?

A. Well I can't give you the exact year.

Q. Within three or four years.

A. I could by looking up notes, but I would say it is about five years.

Q. Anyhow there was no hooking up or serving of gas in Valley Junction until that high pressure main went in.

A. Well we connected up, made a temporary connection over here and served them before we got the line completed across the river.

Q. I mean for the permanent service.

A. Well we served gas out there quite awhile before the permanent connection was made across the river.

Q. That was before this high pressure main was completed.

A. No the high pressure was completed from the river here to Valley Junction but not from this side of the river across to the works.

Q. Of course you could not use it until you got across the river with it?

A. Oh yes we did, used a temporary connection and served
5081 Valley Junction with a temporary connection.

Q. This permanent connection, can you tell about when that was made?

A. That was put in I think that is four years ago this winter if I remember rightly.

Q. When did you first go over this question of the distribution system for the purpose of furnishing information to Mr. Walters about the system, when did you first go over that?

A. Well I can't tell you just exactly the dates.

Q. About when?

A. I would say it was some time possibly, we will say I guess it was in July possibly.

Q. This year in July?

A. Yes, sir.

Q. It was long before that wasn't it?

A. I don't know just when it was.

Q. Long before this case was called?

A. A very short time before the case was called.

Q. It was quite a long time before it was called wasn't it? Wasn't it as early as February?

A. Well I would not say. It was in this year, I don't know the exact date.

Q. You don't mean to say you can't remember within three or four months of the time?

A. I can't remember just what month it was in.

Q. It is true you first went over this business along in February-

A. Well it was some time prior to the case starting.

Q. Now just tell us how you went to work to get this information and give it to Mr. Walters?

A. Mr. Walters took the record out of the engineer's office, 5082 that was all in his possession.

Q. I am asking about the information you gave him.

A. I am trying to give that part of it, I have got to go quite a ways around before I come to it. He had made a copy of what was in the engineer's office and got them in what they term an inventory and some time later on I was called up in Judge Carr's office to find out what I knew about their correctness and the Judge and somebody else, I forget who it was questioned me considerable and found out there was an error or two in the inventory and the Judge suggestee that be corrected and then from that time on I began to study it so as to correct that. And they made a corrected map and also corrected the inventory from what records they already had in the office and from my memory.

Q. That is what I would like to know Mr. Moul, what was the character of this error that was discovered?

A. Well the records there did not show in some instances mains that we had in the streets and in other instances it showed mains that we did not have. So we made those corrections and got out a map that I claim is absolutely correct.

Q. Now did you furnish the information from which the map that you claim is correct was made up.

A. Well I furnished this way. I took it street by street, I sat down here with Mr. Walters and Hopper at the other end of the

table and I would detail each street, the size of pipe from where to where and they would trace that on the map.

Q. You would make statements and they made up the map?

A. That is to see whether correct or not.

Q. Was that the map that was used here on the witness stand before.

A. The map was placed here in front of me when I was on the stand.

5083 Q. So that the map that showed the distribution system which was used while you was on the witness stand was one made for this case?

A. I don't know as made for this case.

Q. It was not one they had in the office up there before the suit was commencee?

A. No the one they had in the office was absolutely correct with the exception of two or three errors in the map in the engineer's office and the records they had copied from that was in error several instances. They corrected them from this map.

Q. I suppose at that time *time* when you we-e questionee about what you knew and you were giving from memory about this distribution system what you said was taken down by somebody in writing wasn't it?

A. Not to my knowledge.

Q. Wasn't a shorthand reporter right there taking it?

A. Not to my knowledge.

Q. Couldn't you see that?

A. No, sir; nobody there but Hopper and this young man I spoke about a moment ago.

Q. You know Mr. Blaise that has been reporting the testimony?

A. I said there was — anybody at that time but that young fellow and Hopper and myself in the room. You were talking about one thing and me another.

Q. Let's talk about the thing I am.

A. You are talking about when that map was corrected. I say when that map was corrected there was nobody in the room but Tom Hopper and this young fellow and myself.

Q. I am talking about the time when you were examined as to your memory about the distribution system and you were telling from memory where the pipes were and the size of them, these statements were taken down by the reporter were they not?

A. You mean the examination that we had up in Judge Carr's office I just told you about?

Q. I don't know where you had it.

A. I just told you we were up in Judge Carr's office.

Q. Well if it was up there?

A. Judge Carr and myself and that gentleman over there, I don't know; somebody else was there I have forgot who.

Q. Mr. Douthirt?

A. That fellow, yes he was there and there was some other fellow there sat right cross the table from me, I could not recognize him now.

Q. What you said at that time about this distribution system and where there were pipes and the size of them was taken down by the shorthand reporter?

A. Well now I could not say as to that. I never saw a copy of it.

Q. Didn't he furnish you a copy of it?

A. No, sir; I never saw one.

Q. How long were you there giving testimony about it?

A. Well I was not giving any testimony particular at all only trying to see how near correct their inventories were with my memory.

Q. Of course what we want to get is the best information we can about this pipe and what you said last February when you were being examined about it after you had been told what the company wanted to find out was just how much pipe there was what you
5085 said about it then was when your memory was fresh and you gave the information correctly as you believed it was didn't you?

A. Yes, sir.

Q. Now if we had that it would show exactly what you believed and understood to be the situation with respect to the distribution at that time wouldn't it?

A. Yes, sir.

Q. You told the whole situation didn't you?

A. As far as I knew it.

Q. You gave every street upon which you believed there were gas pipes and the size of them and the starting and the ending of them didn't you?

A. Yes, sir.

Q. And all the specials that you could think of and every other thing in connection with the distribution system in the way of apparatus and material and pipe and that sort of thing?

A. I aimed to.

Q. In that statement?

A. Yes, sir.

Q. If we had that, that would show exactly——

A. There it is right there in that map.

Q. I am talking about things you said that were taken down by the reporter.

A. I didn't say a thing that is not on the map at all except as I told you awhile ago there was an error or two and we corrected those errors in the inventory in the book form which was produced here in this trial, but they were made from that and that gave you all the information with regard to the size and lengths of mains and services—well I don't know as the map will—but the map told
5086 you every foot of pipe the gas company owns under ground in Des Moines to the best of my knowledge.

Q. If we had what you said and what the reporter took down then we could take it and check it with that map and know ourselves whether it does or not?

A. Well I can tell it to you and tell it to you just the same as I did to him.

Q. You think you got it right as you told it to me?

A. Very near it.

Q. Let's see if you did. Just take the map and turn to Kingman Boulevard and tell me how much four inch pipe is on Kingman according to the map?

A. I didn't give to you any feet, I only guessed distances.

Q. How many feet of four inch pipe on Kingman is shown on the map.

A. I told you practically a certain number of feet single line. I didn't give you exactly how many, but I know I told you about 1,500 feet, something like that single line.

Q. I don't care about what you told me, I want to find how much is there.

A. Well I can't tell you exactly. I didn't aim to give you these streets in feet. About seventy five double line four inch.

Q. About 7,500 feet of four inch pipe on Kingman.

A. Yes, sir.

Q. Is that what the map shows?

A. That is about what it scales.

Q. You are sure that is right?

A. Starts 28th and ends 44th that side.

Q. How many feet of eight inches there on Kingman according to the map?

5087 A. About 3,000.

Q. 3,000 feet of eight inch. How much six inch.

A. About 700.

Q. Any other size?

A. No, sir; not on Kingman.

Q. That map shows, the way it is mad up, shows 7,500 feet of four inch main, 3,000 feet of eight inch main and about 700 feet of six inch main.

A. Yes, sir.

Q. Now do you say that is what is out there?

A. Yes, that shows on this map every foot of it.

Q. Do you say that is what is out there?

A. Well I am only scaling the map according to scales. The points on this map is absolutely correct where it begins and where it ends.

Q. How much inch and a quarter main is shown by that map on Fourth street?

A. West Fourth?

Q. West?

A. This map shows about 250.

Q. Of -quarter inch?

A. Yes, sir.

Q. How much inch and a half is it?

A. I don't see any inch and a half.

Q. Well you spoke about some a little while ago.

A. On Fourth street.

Q. Yes, you said it was still in use there.

A. I don't know where it was on Fourth street.

Q. Well was there any two and a half inch on Fourth street?

A. No, sir.

5088 Q. Any three inch?

A. On Fourth street, yes.

Q. How much three inch.

A. About 5,000 feet of four inch.

Q. How much four inch.

A. About 5,000 feet.

Q. That is all the four inch pipe on Fourth street.

A. That is three inch you were talking about?

Q. Or three inch?

A. Yes, sir.

Q. How much inch and a half pipe is there on State street according to the map?

A. I fail to find any at all.

Q. How much inch and a quarter pipe is there on State street?

A. I don't find any.

Q. When was it taken out or abandoned or do you know?

A. Well there was a piece of it taken out the other side of 13th street when we put in the 12 inch.

Q. Then you were mistaken about saying there was not any used up there.

A. Not that corner. It is up above, you were asking about two places talking about 18th street.

Q. I am asking now anywhere.

A. There is a little piece up about 18th street on College Avenue in use now, piece of six inch going to supply a house at some time.

Q. Not on State street?

A. I am talking about State street.

Q. How much would you say in that little piece?

A. I would say possibly 75 feet, something like that.

5089 Q. That is all there on State street?

A. Yes, to my knowledge.

Q. Take east Fourth street and give us the number of feet of the different kinds of pipe the map shows on that street?

A. You ought to have a college man giving these measurements, not a scrub like me, it is out of my line of business. Beginning at First street and going east to Fifth the first piece you have got, 1,500 feet of eight inch, then you have got about 300 feet of three inch.

Q. Is that all there is on the street anywhere?

A. All three inch on Court Avenue. Then you commence four inch and go about 5,300 feet of four inch. Commence with sixteen and go about 8,000 feet or sixteen. I am doing this just as near as I know how to do it.

Court: There are two lines up there?

A. Up as far as Sixth street goes on here four and sixteen two lines all the way out.

Q. Is there an inch and a half pipe on that street anywhere?

A. Court Avenue, not to my knowledge.

Q. Any inch and a quarter?

A. Not to my knowledge.

Q. Anything under three inch?

A. Not to my knowledge.

Q. I mean as shown on the map?

A. No, sir; don't show it here.

Q. None to your knowledge.

A. No, sir.

Q. Now take east Washington and tell me how much inch and a half pipe is there shown by the map?

A. I don't see any at all.

5090 Q. How much inch and a quarter?

A. I don't see any at all. There is one mistake though I will admit, you asked me awhile ago if any abandoned in Washington. I see I forgot a strip from Penn Avenue to the river, forgot that.

Q. That skipped your mind?

A. Yes, sir.

Q. Then there is not any on that street that is not used now?

A. No, sir.

Q. Is there anything under three inch at all?

A. No, isn't any three inch on Washington whatever.

Q. Any four inch?

A. Yes, sir.

Q. How much four inch?

A. About a thousand feet of four inch.

Q. How much six inch?

A. No, six.

Q. How much ten inch?

A. No, ten.

Q. How much eight inch?

A. About 1,800 feet.

Q. Just 1,800?

A. Might be a little fraction, pretty close to 1,800.

Q. Now you have got Ridge Road haven't you there?

A. No, it is in the other map.

Q. See what the map says about Ridge Road. How much inch and quarter pipe on Ridge Road?

A. Don't see any at all.

Q. How much inch and a half.

A. Don't see any.

5091 Q. Then you were mistaken then?

A. Yes, sir.

Q. So you see we would be much safer if we had your statement you made last spring when that map was gotten up?

A. Not a bit more. This was taken off at that time and this was the statement. I might be in error now more so than I would be at that particular time.

Q. But whatever you said then was what you intended to have go on this map?

A. Did go on this map.

Q. You didn't make the map?

A. No, but I corrected it, I checked it over street by street as

I told you. Some of these little instances might slip my mind in regard to cutting them off and in regard to being in use.

Q. You know the streets, some of them you didn't know them because several you didn't tell me.

A. I didn't, but I am going to hunt them up too.

Q. You can't tell whether that map is correct unless you know the streets, all of them. Find Witmer street, see if there is one. I don't know myself where it is.

A. I don't know either.

Q. You don't find it?

A. I don't find where Witmer is.

Q. I wonder if you can find east H street?

A. H street we term it 15th street from Vine south.

Q. Now is there inch and a half pipe on that?

A. No, sir.

Q. Any inch and a quarter?

A. I think possibly 50 to 75 feet of inch and a quarter.

5092 Q. Shown there by the map?

A. No two inch is shown here.

Q. How much two inch?

A. Well about 275 feet.

Q. 42nd street is a comparatively new street isn't it?

A. Yes, sir. That is from Grand Avenue to University.

Q. And 35th street is comparatively new.

A. Yes, sir; that is it is an old street but recently paved.

Q. Is there any small pipe on that street, on 35th, according to the map?

A. Should be.

Q. Tell how much there is according to the map?

A. Ought to be on 35th about 400 feet. It shows 300 feet of four inch.

Q. Smaller pipe I mean, inch and a half and inch and a quarter, show any?

A. No, sir.

Q. Can you give me some idea about how much of the distribution system in Valley Junction has been put in, in the last four years?

A. Well it was practically all put in at the same time when that was first put in. They have made but two or three very small extensions out there since the first of them, about three possibly.

Q. And about how much of an extension was that?

A. Oh the different times each one of them—well let's see we put in about 800 feet of six inch and then one time put in about seven or 800 feet of four inch, well I would say that there is about right recently or since the first bunch was put in out there has been possibly a thousand feet of extensions made out there since
5093 it was originally put in.

Q. Thousand feet of extensions.

A. About that yes.

Q. How about services.

A. Well we put them in right along all the time.

Q. About what proportion of them has been put in the last four or five years?

A. Well as I said before when we put in the big end of them they was put in that particular time. Of course after this taking year by year we put in possibly maybe eight or ten or twenty five during a year since that time. Depend on the new houses going up or the demand. But Valley Junction was all built up and we laid practically all of it at the same time.

Q. I suppose the same thing is true about meters?

A. Well the meters of course didn't come until the following year until we turned gas into the mains out there then they commenced to put in meters.

Q. Then the meters were put in the last four or five years were they?

A. I don't know just when we put that pipe in. I think it was the last four or five years, I think it is that. Of course I would have to look up dates to be accurate on it.

Q. Do you know how many meters are out there.

A. No, sir.

Q. Don't remember about that?

A. I have no access to know.

Q. Did you devote considerable time just prior to February in looking up these matters and brightening up your memory about them.

A. No, I didn't waste any particular time or put in any particular time. I looked up some old notes that I have from time to time for my own guide.

Q. When were you first asked to get ready to give the information that you finally did give to Walters?

A. The first time I was ever asked about it was when I was invited up to Judge Carr's office and he wanted to find out what I knew about it.

Q. I don't know when that was.

A. I don't know either exactly. It was some time prior to this case I would not know just how short or long it was. It was in 1911.

Q. It was not at that time then that you gave information to Mr. Walters?

A. No, sir, it was later, after that.

Q. You then went to work gathering up information?

A. No, sir; I didn't go to work at all. Only posted myself a little so in case you might ask me how I knew the certain amount of things and certain things I could give it to you with my own figures which didn't correspond with those.

Q. The only thing you got ready for was any questions we might ask?

A. Yes, or anybody else.

Q. Then you got ready for everything didn't you because you expected to be asked all about it didn't you?

A. What I wanted to do and what I tried to do is to keep myself in readiness to find out about the total number of feet. I didn't

have totals and I went and hunted up my records and got totals to show how they corresponded with these.

Q. I would like to have those.

A. I gave them to you when on the stand before.

5095 Q. You said several times you did not undertake to give the feet?

A. I do not.

Q. But you have now gone to work and made up a list or table showing the number of feet.

A. Total from street to street.

Q. Have you got that?

A. Not with me, no sir.

Q. Where is it.

A. I gave it to you here.

Q. When?

A. When I was on the stand.

Q. What list did you make up.

A. Practically this, the amount of four inch and different sizes that was under the ground. I didn't undertake to tell where they laid.

Q. You say now that you wanted to qualify your memory and prepare for anything that might come and after you had given the information from which this map was made you then made up a statement showing the total number of feet.

A. Different sizes.

Q. The different sizes of pipe.

A. Yes, sir.

Q. Now we would like that if you have got it where it is convenient.

A. I have not got it.

Q. What did you do with it?

A. Destroyed it.

Q. When.

A. After I gave it to you here as evidence.

Q. You mean you showed us the statement or turned it
5096 over to—

A. It was here in my evidence the amount of feet. I only had a little note for my personal good. You got the benefit.

Q. Are you sure in your testimony you gave the number of feet of each size of pipe in this distribution?

A. No, sir; I did not. I didn't make any pretense of giving the total number of feet.

Q. What are you talking about here in the record.

A. I stated on this stand the number of feet of pipe that the gas company owned under the ground, three inch and over. I didn't make any pretense of giving three inch and under or under three inch and you have got it in my evidence here the amount of feet that I said was in the ground. Now it does not correspond with the inventory that they have here to the amount of feet, it varies some.

Q. You claim now that when you were on the witness stand before

you gave us the number of feet of all the different sizes of pipe above three inches.

A. Three inch and above.

Q. That the gas company has under ground?

A. Yes, sir.

Q. And you gave that as being correct did you?

A. Yes, practically.

Q. You intended it to convey to us the truth about the number of feet?

A. Yes, sir.

Q. And you think that is in your evidence?

A. I know it is.

Q. Did you take it from the paper, from the memorandum at the time?

A. No, sir; I did not.

5097 Q. But you had a memorandum in your pocket at the time that had all this information didn't you?

A. Well it just had the number of feet of different sized pipe and number of services year after year and I added them together. The way I keep that was the number of feet of pipe laid this year and how many another year and added them together at that time showed the number of feet laid added to what was already laid when I came here. That was the evidence I gave you.

Q. You say you don't have that memorandum here now?

A. No, sir.

Q. You destroyed it?

A. Yes, sir.

Q. Just because you thought you were through with it?

A. Yes, sir.

Q. Never would need it again?

A. No, sir.

Q. You didn't put these figures down anywhere?

A. No, sir.

Q. How much difference was there between your figures of the total amount of two and a half inch pipe and under the map figures.

A. There was considerable difference between less than three inch for this reason as I gave it in my evidence before at the time that that pipe was put in the ground we termed it as new service which goes back quite a ways, a good deal of it and under the new management of Mr. Haines here he placed that under the system of mains, anything that run parallel with the street as mains at that time, but previous to this I know it was all called new service for less than four inch and we varied considerable on that amount.

5098 Q. Of course you had that by figuring it out at the time finally?

A. No, I didn't make any pretense as I told you before on less than the three inch because I kept that—it got rather mixed that way because I kept that under new service really a good deal of it. I gave it to Mr. Walters when he was making this up the best I could. I would not say that was absolutely correct.

Q. You gave him the service pipe too didn't you?

A. No, he got a great many of them off the records. Of course he got them from me in this way, I made the return of those, he took the returns and then he had men go around from house to house and count the services as they go into the cellars, then we corrected a great many of them after he had them all collected together.

Q. How would he get the length of service?

A. Measure from the mains to the inside of the cellar, give you practically the length of the service.

Q. That is from the street to the meter?

A. Yes, sir.

Q. Is that the way you did in all cases?

A. Practically. That is the way all services measure. Of course years ago it used to be we would run clear around a house to get the meter in the back end if necessary so as to save inside pipe, but now we go in the front and do the inside piping from the meter in the building so that cuts the service some shorter now than they were years ago.

Q. Did you get the exact length of these services?

A. Practically.

Q. Did you figure them so long?

A. No, I figured them each year.

5099 Q. Averaged them about 80 feet?

A. Yes, sir.

Q. Whether that or not?

A. They will average that long and short.

Q. That means from the main that runs parallel with the street to the meter?

A. Yes, sir.

A. That is the way the inventory was made up?

A. Yes, sir.

Q. You have said once or twice that it was inch and a half or rather three inch and over that you covered by your memoranda. Do we understand from that that you do not vouch for these measurements as to the smaller pipe?

A. I do not in this way as I explained to you. At the time that a good deal of that was put in, it was put in under the head of new service. We have gone ahead and estimated the length of that the best we could and put it into the extension list under this new management, a great deal of that was on record as new service so I did not dictate to the full extent of that because I could not tell in every instance. Then I kept no record of that particularly.

Q. Just what do you mean by new service?

A. Say a main came here part way up the street and you lived a little beyond the main in place of them extending that main they would run a service pipe up there to satisfy you and that would go in under the head of new service, but now we can't do that. The system is now we have got to extend that main up to you so your service will come direct off the main.

Q. What is in the ground parallel with the street is termed mains?

5100 A. It is.

Q. All called mains now, but before part of it had been called services?

A. Yes, sir. That is the reason why I would not be positive about the amount of it.

Q. The largest pipe there is no chance for you to be mistaken about, 24 inch pipe is there?

A. I don't think so.

Q. The amount you give and the amount the map shows you think is correct do you?

A. Could not be any difference.

Q. Have you measured up on that map to see *see* just how much 24 inch pipe?

A. I didn't scale the map, no sir.

Q. Do you have any idea what it shows?

A. I can tell you what it ought to show. 24 inch main to Second down to First and First down to south of the Wabash where it crosses the river and over the river to the governor, that is all the 24 inch we use.

Q. About how many feet would that be?

A. I would say about 1,800 feet.

Q. 1,800 feet?

A. About that.

Q. How long has it been that you put these services in clear to the meter, have you always done that?

A. Oh yes. That is we go to wherever the pipe sets that distributes through the house we have to go and that is where the meter sets. In a great many instances in times past that would be anywhere in the house, the center of the cellar or something of that sort. Now we set the meter at the head of the service.

5101 Q. For instance, take the Savery House, that was built quite a good many years ago. You were with the gas company when the services were put in there were you not?

A. Yes, sir.

Q. How were they put in, the services, where did they start from.

A. There was only one.

Q. Where was it put in?

A. It is on the alley west of the building, goes back to pretty well in the rear and then it goes in the front wall and runs across one room the same as this. The service comes in here and goes over and runs across to the meter box up against the east wall of that room.

Q. How was that work done at that time?

A. Free of charge.

Q. All of it free of charge?

A. No, not all of it.

Q. What was the charge for any part of it?

A. Run to the lot line free of charge and the- got fifteen cents a foot from that in.

Q. From the consumer?

A. Yes, sir.

Q. How long was that method pursued?

A. We followed it up until 1896, the spring of '96.

Q. Isn't this the way of it, prior to and up to 1896, all of the services that were put in in this town the owner of the property paid fifteen cents a foot for the services from the lot line to the meter?

A. Yes, sir.

Q. Since 1896 how has it been?

A. Free; any length or any size from the main to the meter, no matter where the meter sets.

COURT: In other words, you mean that is at the expense of the company?

A. Yes, sir.

COURT: Including the meter also.

A. Yes, sir.

Q. That is for instance up until 1896 the lot owner paid 15 cents a foot for all the service from the lot line to his meter?

A. Yes, sir.

Q. And that was under some ordinance here was it not?

A. Yes, sir.

Q. What was the average distance at that time?

A. Well at that time it was mostly down town districts and the services would average about 75 feet.

Q. About five feet shorter than they do now?

A. About that yes. The last year or two so many of these houses set back so far it has increased the length.

Q. About what would be the average distance from the lot line to the meter in these services up to 1896?

A. Well they would run along about 40, 45, and 55 feet, in other words nearly every service we run cost them about \$7.50. I can remember that better than I can the distance because we figured on about \$7.50.

Cross-examination by Hon. GEORGE H. CARR:

Q. You say Mr. Moul that the first time your attention was called to this matter of the distribution system of the gas company was in conversation with me in my office.

5103 A. Yes, sir.

Q. And what was it I inquired about?

A. Using your words as near as I can recall, is that what you want?

Q. Yes.

A. Said you brought me up there to find out what I knew about this or in other words you wanted to know what I knew.

Q. Wanted to know what personal knowledge you had with regard to this distribution system?

A. Yes, sir.

Q. Did you tell me you knew all about it?

A. I did.

Q. Did I then inquire whether you could give me the pipe and the size of them and streets in which they were located?

A. Yes, sir.

Q. Where they began and where they ended and all that?

A. Yes, sir.

Q. You say some time after that or perhaps at that time that I asked you a good many questions about it and it was taken down by a stenographer?

A. I didn't say that sir.

Q. Well what did you say about it?

A. It was the particular time, I didn't say as far the shorthand was concerned whether taken at all or not. I never saw a copy of it.

Q. Now in the conference that we had the matter was gone into somewhat in detail wasn't it, for the purpose of finding out what you knew?

A. Yes, sir.

Q. You were asked with regard to quite a number of streets 5104 weren't you?

A. Yes, sir.

Q. Somewhat in the same manner General Byers interrogated you here?

A. Yes, sir.

Q. We didn't go over all the streets did we?

A. No, sir.

Q. Just enough to satisfy me that you knew about it?

A. I think so.

Q. Then later you worked with Mr. Walters in the preparation of that map?

A. They took the record out of the engineer's office and put on this here as far as they went off of that record that they then had in the office and Mr. Hopper and Mr. Walters were together on one side of the table and I sat at the end and they pointed that map out street by street first one side of the river and I sat at the end of the table and told them what we had under ground and they followed that tracing, traced that map from one end to the other.

Q. Then was when you went over the entire system all of it in detail?

A. Yes, sir.

Q. No one present at that time except you and the two gentlemen named?

A. Not to my knowledge.

Q. Where were you?

A. We were in the gas company's office.

Q. If there had been anybody else there you would have seen 'hem wouldn't you?

A. Pretty likely, yes.

5105 Q. In going over the matter in detail did you undertake to state the length of any given pipe?

A. No, sir.

Q. About how was that ascertained?

A. Well I suppose they scaled the map.

Q. How did they go to work to scale the map?

A. Well I gave them the starting and ending points of different sizes of pipe, wherever the pipe changed size I would give them that as a starter or ender.

Q. What did you tell them about that?

A. I would say, take Seventh street for instance, we would start on Seventh street at a certain point with a certain size and end with a certain point and then begin with another size.

Q. Now would you describe that point?

A. Wherever it ended. Say we would start with the main on Walnut street and go north to where the intersection came and if it didn't increase in size of the pipe would continue on to the end. Take Seventh street from Grand Avenue there is no change until you get to School and I would just say it started at Grand Avenue and goes to School three inch and then increases to a four and continues a four then until you get to Prospect Boulevard or Drive, whatever it is out there.

COURT: You gave where it began and ended?

A. Yes, sir. In a great many instances later on, a great many took my measurements as I turned in my reports.

Q. You are not accustomed I judge yourself to scaling maps?

A. No, sir; that is not my business.

Q. In answering General Byers' questions as to various lengths of pipe from what source of information have you spoken?
5106 A. I told him I had to guess at it. I took for granted that the blocks here averaged 350 feet from center to center. I counted the blocks generally or portions of that block and in a great many instances some 600 foot blocks. I had to guess at it, it was all guess as I told him I would be guessing at the length.

Q. This scaling, did you do it as well as you could?

A. That I done as best my knowledge let me. I aimed to get that as near correct as anybody could do it.

COURT: A mere supposition about the scaling or did you see it done?

A. I didn't see it done, no sir.

Q. You have been asked with regard to certain streets that you say you don't know about. What is the fact as to whether quite recently there has been a change made by the City Council in the naming of streets?

A. About a year ago or I think last spring early, possibly, maybe in the winter they changed a great many of these streets a great many of them and there are some new districts that I am not familiar practically with the old or new names.

Q. You were asked about east H street and you traced that up did you on the map?

A. Yes, found that to be east 15th.

Q. That is the ordinary name, is east 15th?

A. That is what we call east 15th.

Q. Sampson, street did you look that up?

A. No, didn't look up Sampson. That is the only one I looked up I think.

Q. Do you know now and did you know when on the witness stand before where all the pipe is and stated as you understand
5107 or understood the name of the street?

A. I think so, yes. I don't think there is a foot of pipe, as I said before from three inch up that I can't tell exactly where it is under ground.

Q. Did you assist Mr. Walters or give him information rather in making up a table showing abandoned pipe?

A. Yes, sir.

Q. I call your attention to Exhibit 37 showing mains in ground one column, size, next number of feet in use, next number of feet laid in a given year and the number of feet taken up or abandoned in a given year and the number of feet in use following on from 1889 on up to 1911. Did you give him that information as shown in that table with respect to the abandoned pipe that is shown in the table?

A. Well some of it I did and some of it he took from the records showing replacement and also whether it was abandoned or not. In some instances I gave it to him from memory but not all.

Q. Well any way you assisted, that is you gave him your personal knowledge as to all abandoned pipe did you?

A. Well I aimed to give all of them. Now I might have missed some but very few.

Q. I suppose in going over these streets and the mains in the streets with Mr. Walters in making that map you had some man before you to locate the streets did you?

A. No, sir.

Q. You had no map?

A. No, sir.

Q. Do you know anything about whether the authorizations for mains in the streets always correspond with the mains that are actually laid ?

5108 A. I don't believe I understand you, am I familiar with the fact that the authorization covers the amount laid?

Q. Yes?

A. Well I suppose yes, the authorization is supposed to specify practically the exact amount, also the size and site and depth that is supposee to show on the authorization, the supposed amount per foot of cost laying it, replacing the pavement or anything of that sort.

Q. What I am getting at is do you know whether in all instances the authorizations were carried out, that is the pipe laid just in accordance with the authorization or whether authorization when there was no pipe laid?

A. It hardly ever laid exactly the authorization because the authorization might determine one side of the street, might determine four or five hundred feet when we find it necessary to trade sides of the street from the fact of keeping away from water or sewer. They don't practically correspond with one another, but of course aim to keep the two as near together as practice will let us.

Q. Do you know whether authorizations are sometimes made where the mains are not laid, for example there might be an authorization for laying maind in Witmer street and no mains laid there.

A. Well if it is not laid this year it will be laid next year. I don't know of any instance where they have issued an authorization where the pipe has not been laid or pending to be laid. Sometimes we carry them over. They may ask for an authorization to lay a certain amount of pipe to lay this year in a certain street. Business don't demand it and they hold that over till next year or possibly the next year. I have known them to go over two years before
5109 laid, but eventually it will be laid.

Q. By the authorization you mean the authorizations given to you as foreman.

A. Yes, sir; my authority to lay the pipe or information about laying the pipe.

Q. From whom do you get this authorization?

A. The engineer's office. And before we had an engineer they came direct from the manager.

Redirect examination by Hon. H. W. BYERS:

Q. These authorizations whenever there is any change made in them that is to say if an authorization covers a certain improvement and you do not make the improvement or only make a part if it, that is shown then on the authorization and the part you do not make is either canceled or carried over and made afterwards.

A. Yes, sir.

Witness excused.

Mr. BYERS: I would like to ask and have it in the record for the transcript of Mr. Moul's testimony that was taken in February and was referred to by Mr. Haines in this \$220 charge or voucher of the Blaises and I ask for it for this reason that that voucher shows, as I remember it, without going to the voucher that there was something over 50 pages of Mr. Moul's statement and it now appears that it was taken for the purpose of furnishing information to the Master in this trial and it also appears that some of the exhibits
5110 that have been offered by complainant are based on the information, at least partly upon the information that is contained in that transcript and that it is important and will be helpful in figuring out this distribution system and we ask counsel or ask the complainant to produce it and have it go into the record.

Court: That presents a little different question gentlemen from the question this morning. That presents this question, that is the question of information given from which an exhibit is made. I will give you both an opportunity to be heard on that. I want you to distinctly understand that so far as information given to attorneys, whether they take it down themselves or whether taken down by a shorthand reporter in the preparation of their case, I have no hesita-

tion to say that I do not understand that counsel are required or obliged to produce it. They are at liberty to do so if they want to. This presents a little different question and I will not dispose of it now, but I will hear from you on that question hereafter. It is nearly adjourning time now.

Judge CARR: I think perhaps you may not have the situation clearly in mind. Mr. Moul's testimony is that at the time the map was made, at the time he furnished the information from which the exhibit was made, there was no one present but himself and Mr. Walters and the other gentleman assisting Mr. Walters. That no report of that was made. He just simply sat down there and furnished the information. The report that they speak of was the interview that I had with him when I was asking for information here and there to test his recollection. That is the record your honor.

COURT: When the reporter has a transcript of this testimony I will look that question over a little further and I will hear
5111 you both fully at that time. My recollection of it is that he stated at the time that Mr. Walters made the map that he then went over it and made corrections and the map was corrected, some errors and mistakes and there was just himself present with Mr. Walters and one other person and that was in the gas company's office. I am not right sure as to what his testimony was of what occurred in the office at the time of his talk or conversation. Of course it could only be used for one purpose and that would be as impeaching testimony. It is not original testimony and could not be. But as I have said I will not pass upon this matter until I have looked over the transcript and given you an opportunity to be heard fully at that time.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

5112 In the Circuit Court of the United States, Southern District of Iowa, Central Division.

DES MOINES GAS COMPANY, Complainant,

VS.

CITY OF DES MOINES et al., Defendants.

Before Hon. Robert Sloan, Special Master in Chancery.

We, J. P. Blaise and Frank C. Walrath, hereby certify that we were duly appointed and sworn to take the testimony in shorthand in the above entitled case and that we correctly reported the proceedings upon the said hearing and that the foregoing transcript contained in four volumes is a correct, true and complete transcript of our shorthand notes taken in the above entitled cause and that it contains, together with the documentary evidence and exhibits therein re-

ferred to, all of the evidence that was offered or introduced on the trial of said cause and all of the objections and rulings, if any, made and exceptions taken.

Witness our hand this 1st day of December, A. D. 1911.

(Signed)

J. P. BLAISE,
FRANK C. WALRATH,
Shorthand Reporters.

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DES MOINES GAS COMPANY

VS.

CITY OF DES MOINES et al.

Special Master's Certificate.

I, Robert Sloan, Special Master, do hereby certify that the foregoing transcript of the short hand notes of the reporters herein before set forth, in four volumes, from page 1 of the 1st volume to page 5111 of the fourth volume inclusive, together with the exhibits therein referred to, contains all the evidence offered on the trial of the above entitled cause by either the complainant or the defendants and objections made by respective counsel and the rulings thereon.

Special Master in Chancery.

5114 In the Circuit Court of the United States, Southern District of Iowa, Central Division.

THE DES MOINES GAS COMPANY, Complainant,

V.

THE CITY OF DES MOINES et al., Defendants.

Certificate of Evidence.

I, Robert Sloan, Special Master in Chancery before whom the above entitled case was tried, do hereby certify that the hearing thereof began on the 12th day of July, A. D. 1911 and the arguments closed on the 29th day of November, A. D. 1911, and that during the hearing thereof J. B. Blaise and Frank C. Walrath were the official stenographers duly appointed thereto and took down and reported in shorthand from day to day as the trial progressed, all the evidence offered on the trial thereof by either party to the case, and, the objections thereto and such rulings thereon as made by the Master in Chancery at the time, and from day to day furnished true and correct translations and transcripts of the evidence as

taken down and reported in short hand by said stenographers and the translations and transcripts thereof and each and all consecutively paged and put in book form and duly bound in four volumes entitled in the case, beginning with page 1, Vol. 1 and ending with page 5111, Vol. 4 of such reports.

5115 I further certify that said bound volumes from page 1, Vol. 1 to page 5111, Vol 4 have been duly certified to by said stenographers and each of them and that said volumes together with exhibits therein shown to have been offered in evidence constitutes and contain a complete record of all the evidence in the case offered by either of Complainants or the Defendants or any of them, as well as the objections of counsel thereto, and such rulings as made by the Master in Chancery thereon, and constitute a full, true and correct and complete record of all the evidence offered on the trial thereof by either party.

I further certify that by agreement of counsel that the oral arguments were duly reported by said stenographers and fully translated and transcribed and bound in a separate volume, which contains a full, true and correct transcript thereof.

Witness my hand this 29th day of November A. D. 1911.

(Signed)

ROB'T SLOAN,
Special Master in Chancery.

5116 In the District Court of the United States for the Southern District of Iowa, Central Division.

No. 71-M. Equity.

DES MOINES GAS COMPANY, Complainant,

vs.

CITY OF DES MOINES et al., Defendants.

Clerk's Certificate to Part Two (2) of Transcript.

UNITED STATES OF AMERICA,
Southern District of Iowa, ss:

I, Wm. C. McArthur, Clerk of the District Court of the United States for the Southern District of Iowa and as successor in office of the Clerk of the Circuit Court of the United States for said District and State, hereby certify the foregoing, designated as part two of the transcript, (pages 1 to 5115 inclusive, all contained in seven bound volumes, marked Part Two A, to G inclusive,) to be a full, true and complete copy of the testimony, as called for in the Appellant's praecipe and the Appellees' praecipe for a transcript in cause numbered 71-M Des Moines Gas Company versus the City of Des Moines, Iowa, et al., lately pending in said District Court of the United States for the Southern District of Iowa, as successor of the

Circuit Court of the United States for said District and State, as full, true and complete as the originals thereof now on file and of record in my office in the City of Des Moines in said District.

In testimony whereof, I have hereunto set my hand and affixed the seal of said Court at my office in the City of Des Moines in said District this 30th day of November A. D. 1912.

[Seal U. S. District Court, Southern District of Iowa.]

W. C. McARTHUR,
Clerk as Aforesaid.

[End of Volume IV.]

